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2008-2009 Ursinus College Course Catalog

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2008-2009

COURSE CATALOG



URSINUS

Ursinus College Catalogue

Published May, 2008 by:

Ursinus College
P.O. Box 1000
Collegville, PA 19426-1000
610.409.3000
www.ursinus.edu

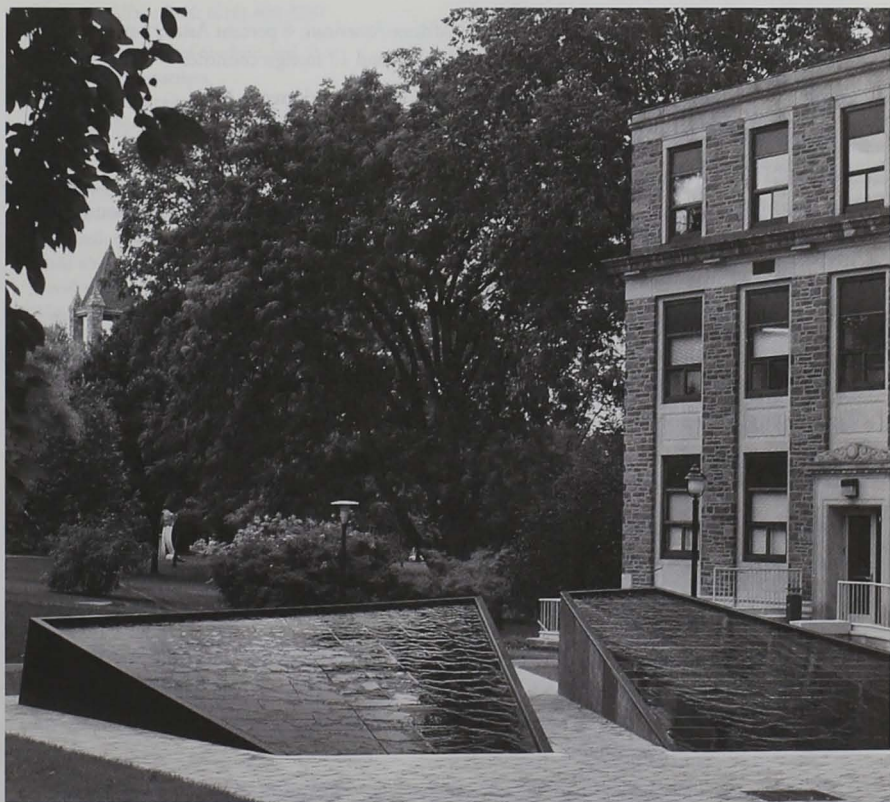
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www.ursinus.edu

URSINUS COLLEGE CATALOGUE

Character: Independent liberal arts.

Founded: 1869; coeducational since 1880.

Location: Collegeville, Pa., 28 miles northwest of Philadelphia.

Enrollment: 1,583 students.

Student Diversity and Demography: 7 percent African American; 4 percent Asian; 3 percent Latino; 2 percent international; students from 28 states and 17 foreign countries.

Faculty: 119 full-time faculty, 92 percent hold Ph.D. or highest degree in field.

Student/Faculty Ratio: 12:1; 80% of courses have fewer than 20 students.

Campus: 170 acres, 64 buildings.

Residential Character: 97 percent of students are in residence; varied special interest housing is available

Academic Calendar: Two 15-week semesters.

Courses Offered: 27 majors, 52 minors; Biology, Economics, English, Psychology are most popular.

Academic environment: Member of Watson Foundation; Annapolis Group; 14 prestigious honor societies including Phi Beta Kappa.

Student Organizations: More than 80 clubs, organizations and interest groups

Undergraduate Research: Strongly encouraged; students present research at colloquia and conferences; Independent Learning Experience required; Summer Fellows program

Internships: Every department encourages academic work experiences.

Study Abroad: College-run programs in England, Italy, Spain, Germany, Costa Rica, Mexico, Senegal and others; affiliation with programs in 25 countries including France, Germany, Spain, England, Australia and Japan.

Community Service: Varied opportunities including Alternative Spring Break and first-year orientation community service day; participation in America Reads and Best Buddies.

Athletics and Recreation: NCAA Division III intercollegiate program with the Centennial Conference; strong participation in intramurals.

Library: Myrin Library houses more than 420,000 volumes, and offers access to 228,000 print, microform and electronic periodical titles and 46 million volumes.

Computers: All freshmen receive a laptop computer. The campus is fully networked with partial WiFi access; residence halls and buildings are wired for computer, telephone, Internet and cable television access.

Admissions Calendar: Early Action applications due Dec. 1; Early Decision applications due Jan. 15; Regular Decision applications due Feb. 15.

Financial Aid: Some 85 percent of students receive financial assistance.

After Ursinus: 75 percent of Ursinus graduates eventually enter graduate and professional schools.

Web site: www.ursinus.edu

Communication with Ursinus College

Academic and Student Affairs

Judith T. Levy, Vice President for
Academic Affairs and Dean of the College

(610) 409-3586

Academic Affairs FAX: (610) 409-3787

Academic Standing of Students and

Requests for Transcripts

Barbara Boris, Registrar

(610) 409-3605

Registrar's Office FAX: (610) 409-3756

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Richard DiFelicianantonio, Vice President
for Enrollment

(610) 409-3200

e-mail address: admissions@ursinus.edu

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Carla M. Rinde, Director of Career Services

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Career Services FAX: (610) 409-3631

Center for Continuous Learning

Ellen Matthews, Dean of Continuing Education

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Center for Continuous Learning

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E-mail address: adultslearn@ursinus.edu

Web page: www.eveningprograms.ursinus.edu

Communications and Public Relations

Sally Widman, Director of College Communications
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College Communications FAX: (484) 762-4285

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Suzanne Sparrow, Director of

Student Financial Services

(610) 409-3600

Student Financial Services FAX: (610) 409-3662

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for Finance and Administration

(610) 409-3591

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Lindsay A. Rhodenbaugh, Senior Vice President
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(610) 409-3588

Development Office FAX: (610) 409-3724

Toll-free: 877-GIVE-2-UC

President of the College

John Strassburger

(610) 409-3000, ext. 2212

Residence Life

Deborah Nolan, Dean of Students

(610) 409-3586

Residence Life Office FAX: (610) 409-3787

Correspondence should be directed to the appropriate administrative officer.

The mailing address is Ursinus College, P.O. Box 1000, Collegeville, Pennsylvania 19426-1000.

The main college telephone number is (610) 409-3000.

Visitors to the College are welcome. Student guides are available by contacting the Office of Admissions, located in Corson Hall. To assure a satisfactory visit, applicants for admission should call or write for an appointment.

This catalog is intended for the guidance of persons applying for or considering application for admission to Ursinus College, and to assist Ursinus students and faculty for the 2008-2009 academic year. This catalog is not a contract; it presents the requirements, offerings, information and regulations in effect at the time of publication. The college reserves the right, through its established procedures, to change any requirement or other provision at any time. Ursinus College intends to provide notice of any change. However, it is the responsibility of each individual student to become and remain aware of all applicable requirements and provisions that may apply.

The mission of Ursinus College is to enable students to become independent, responsible, and thoughtful individuals through a program of liberal education.

That education prepares them to live creatively and usefully, and to provide leadership for their society in an interdependent world.



The College

Ursinus College is a highly selective, independent, four-year liberal arts college with a tradition of academic excellence. It is among the eight percent of U.S. colleges to shelter a chapter of Phi Beta Kappa, the national academic honor society.

A leader in undergraduate research, Ursinus offers majors leading to a bachelor of arts or a bachelor of science degree in 27 major fields and 52 minor fields.

The Ursinus liberal arts education teaches students to think critically across the disciplines and emphasizes student achievement. A recent Middle States Association evaluation noted that "Ursinus College excites its students by involving them in active learning and transforming experiences. There is emphasis on close faculty interaction, made possible by many small classes and opportunities for independent study and research. Ursinus is a remarkable liberal arts college—student-centered, academically rigorous, ambitious, achieving, serious about students in the community—focused, in other words, on the right things. This focus on teaching and learning leads to a level of student-centeredness that is commendable. The high academic expectations of the college are coupled with a commitment to developing the whole student."

All departments require a capstone project. Students are encouraged to continue their research and interests during their academic career.

A residential liberal arts college, Ursinus' educational program extends beyond the classroom, as the faculty fosters students' intellectual and creative talents throughout the College experience, especially as mentors for research and internships. The Ursinus experience nurtures a sense of community by empowering the intellect, awakening moral sensitivity and challenging students to improve society. The faculty is composed of some of the leading teacher-scholars in the country. The cornerstone of our academic program, the faculty is dedicated to teaching and scholarship.

Accreditation

Ursinus is accredited by the Middle States Association of Secondary Schools and Colleges, is approved by the Department of Education of the Commonwealth of Pennsylvania for the certification of teachers, and is certified by the American Chemical Society. The college is a member of Project Pericles, of the Centennial Conference and of The Annapolis Group.

The First-Year Experience

The first-year student advising program embodies a concern for the individual student and has as its goal the promotion of a successful adjustment to college. It also aims to address personal and intellectual development so that each student may realize his or her fullest potential.

Faculty members from all the disciplines serve as first-year student advisers. Students will have the opportunity to meet with an adviser during spring orientation; at this time they will begin the process of selecting courses for the fall semester, as well as having time to discuss their expectations and goals. During August orientation, advisers will meet with their advisees to review fall schedules, make any needed changes, answer any last-minute questions, and set up meeting times with their advisees for the fall.

Regular advising meetings allow the adviser to monitor a student's adjustment to the college and help in the identification of early warning signs of academic or personal difficulties. As students "settle in" and as a rapport develops between adviser and advisee, meetings will normally shift to a student-initiated, "as needed" basis. However, students receiving academic warning slips must meet with their advisers within five days of receiving the slip. Advisers should be prepared to help and encourage students to deal with personal and academic issues of adjustment. Students should be ready to use the adviser as the first, not last, resort when they encounter difficulties.

First-year students traditionally declare a major in the middle of their second semester at Ursinus. Students should meet with their adviser to discuss options. The adviser should encourage them to meet with faculty in their intended major department to find out more about the program. Responsibility for academic advising will shift to the student's major department after the spring declaration date. All students must declare a major no later than during the spring semester of their sophomore year. Students should be aware that in some departments it is easy to complete the requirements for graduation if they postpone the declaration of the major until the sophomore year. In other departments, the sequential nature of the program may make this more difficult. A careful reading of the First-Year Advising Handbook, available on www.ursinus.edu, should help students and advisers as they discuss the various options.

First-Year Student Coordinator

The primary role of the First-Year Student Coordinator is to integrate academic and student services in an effort to enhance the intellectual experience and academic achievement and to support effective retention of first-year students. The coordinator works with both the Academic Dean and the Dean of Students to facilitate this process. Additionally, the First-Year Student Coordinator teaches in the Common Intellectual Experience Program.

First-Year Clustering

Ursinus attempts to cluster first-year students in comfortable, convenient residence halls that are centrally located, well-programmed and well-supervised.

The college is focused on the quality and the outcomes of the first year, because the evidence is overwhelming that a strong foundation leads to significant academic, leadership and personal achievements. The college's learning communities aim to foster good students and good citizens.

Student Life

Ursinus emphasizes growth in independence and responsibility. Students are encouraged to take an active role in the life of the campus community, where there are many opportunities to contribute to group decisions, practice leadership, sort out priorities and make personal choices. Students are encouraged to sit on campus committees and, in fact, are included in the membership of most faculty committees. As part of the regular campus planning process, policies affecting student life are under continuous review with the goal of furthering the educational effectiveness of residence hall life, social activities, counseling and advising.

The Student Life program is administered by the Dean of Students in the Dean's Office, Corson Hall. It includes career services, counseling and wellness, health services, international student services, leadership development, multicultural services, residence life, security, student activities and tutorial programs.

Students at Ursinus share the responsibility for maintaining the educational climate needed for learning and for personal growth. The College expects that when students decide to enroll they will abide by all the rules of the College.

Activities and Organizations

Ursinus students can organize, participate in and attend diverse cultural, educational and recreational activities on campus.

Constitutions for all student organizations are approved by the Student Activities and Services Committee. Members of the faculty and administration serve these groups as advisers, and the Student Activities Office serves as a resource. The Ursinus Student Government Association (USGA) has the principal responsibility for student participation in the planning and administration of student life. USGA members are elected by the student body and are advised by a member of the Academic and Student Affairs staff. The USGA allocates funding to campus organizations.

The Campus Activities Board (CAB) is the primary source of campus-wide programming, providing movies, dances, concerts, trips and entertainment, as well as opportunities for leadership development. In addition, film series, theatrical productions, concerts and visits by notable artists and speakers are sponsored by campus organizations and academic departments throughout the academic year.

Students are encouraged to create organizations through the Leadership Development and Student Activities Office. Student interest and academic organizations include Alternative Spring Break, Association for Computing Machinery, Association of Latinos Motivated to Achieve (ALMA), Beardwood Chemical Society, Beta Beta Beta Biological Society, Berman Buddies, Blue Note Jazz Society, Brownback-Anders Pre-Medical Society, Chess Club, College Democrats, College Republicans, Escape Velocity Dance Troupe, Exercise and Sport Science Club, Film Society, Forensics Society, Gay/Straight Alliance, German Club, The Grizzly (newspaper), Haines-Barnard Pre-Legal Society, Hillel, International Relations Club, Intervarsity Christian Fellowship, Investment Club, Japanese Club, The Lantern (literary magazine), Le Cercle Français (French Club), Mathematical Association of America, Newman Society, Organization of Commuting Students, Political Science Association, Psychology Club, Residence Hall Association, Roller Hockey Club,

URSINUS COLLEGE CATALOGUE

The Ruby (yearbook), Sankofa Umoja Nia (S.U.N.), S.C.U.B.A. Dive Team, Society of Physics Students, Spanish Club, Southeast Asian Student Association (SASA), Students for Creative Anachronism, Students Together Against Rape (STAR), Table Tennis Association, Ursinus Blue Skies Environmental Organization, Ursinus College Theater, Ursinus Film Society, Ursinus Fishing Club, Ursinus Folksong Society, Ursinus Men's Rugby Club, Ursinus Student Government Association (USGA), Ursinus College Women's Rugby Club, Voices in Praise, Whitians, World Cultures Club, and WVOU (radio station).

Community Service clubs include Best Buddies, Norristown State Mental Hospital Volunteer Program, Student Emergency Response Volunteers and Relay for Life. Additionally, Greek organizations on the Ursinus campus currently include the fraternities Alpha Phi Epsilon, Beta Sigma Lambda, Delta Mu Sigma, Delta Pi Sigma, Kappa Alpha Psi (colony), Phi Kappa Sigma, Pi Omega Delta, Sigma Rho Lambda, and Sigma Pi. The sororities are Alpha Sigma Nu, Kappa Delta Kappa, Omega Chi, Phi Alpha Psi, Sigma Gamma Rho, Sigma Sigma Sigma, Tau Sigma Gamma, and Upsilon Phi Delta. The presidents of these organizations serve on the Greek Presidents Council, the governing board for all fraternities and sororities.

Athletics

For over 100 years, Ursinus College has been a leader among liberal arts colleges in combining and balancing athletics and academics. Ursinus offers unique opportunities to achieve athletic and personal goals through intercollegiate athletics, club sports and intramural programs. Whether they're playing among themselves or against another college's club team, or competing on one of Ursinus' 25 intercollegiate teams, students of all interest and ability levels discover the benefits of an active lifestyle. Over 85 percent of Ursinus students integrate some aspect of the athletic program into their lives at the College. You can achieve national recognition through intercollegiate athletics, or participate in a recreational, club, or intramural sport for the first time. Involvement at any level is encouraged.

Home to the United States Field Hockey Hall of Fame, Ursinus boasts the oldest field hockey program in the nation. Ursinus is a member of one of the three leading scholar-athlete conferences in the nation—the Centennial Conference (NCAA Division III). Its athletes not only compete in national championships every year; they also go on to achieve success in every imaginable field, from medicine and law to government, business and community service. Ursinus is a leader among Centennial Conference Colleges in its commitment to fostering excellence on the playing field and in life.

Like the other 10 colleges with which Ursinus competes in the Centennial Conference (Bryn Mawr, Dickinson, Franklin & Marshall, Gettysburg, Haverford, Johns Hopkins, McDaniel, Muhlenberg, Swarthmore, Washington), Ursinus places its academic program as the top priority. This philosophy brings out the best in student-athletes and allows them to reach their potential, both in the classroom and on the playing fields. Athletics at Ursinus College provide the opportunity for student-athletes not only to participate in a highly competitive environment, but also to learn important lessons that apply in all aspects of their lives. These lessons support the mission of the College by helping to create a well-rounded individual: someone who has not only been shaped by Ursinus' academic rigors, but who also possesses a strong character that athletics has helped to develop.

The intercollegiate athletic teams at Ursinus are uncommonly competitive, winning a number of conference, regional, and national championships. Ursinus College is committed to providing the resources necessary to ensure that all student-athletes experience the benefits of successful athletic competition. Such competition complements an outstanding academic program and enhances an Ursinus education.

Arts

Performance opportunities in theater and dance are available to students from all disciplines. Each year, the Ursinus College Theater presents four student productions, ranging from the classics to the avant-garde. The Ursinus College Dance Company presents two major student productions a year, with works representing a multitude of dance forms, including jazz dance, improvisation, African dance, modern, ballet and hip-hop. Students also have the opportunity to see professional performances on campus and to participate in workshops and classes during guest artist residences.

Music organizations are varied. Faculty members in the music department advise most of the student musical organizations and provide professional musical leadership. The Meistersingers, a choral ensemble open by audition, offers concerts on and off campus, including a one-week tour each year. The Meistersingers toured Italy in 2003 and Spain in 2005. The Ursinus College Choir, open to all in the college community by audition, performs varied works. Its annual presentation of Handel's *Messiah* is a highlight. The College Wind Ensemble is open to everyone in the Ursinus campus community. The Jazz Ensemble is a big band that performs several concerts per year, and is open by audition. Students participate in several "Music at Noon" concerts throughout the year, performing some of their own compositions at the last concert of the spring semester.

A student-run gospel choir rehearses weekly and sings at chapel and other events throughout the academic year, and a men's chorus, The Bearitones, performs at Music at Noon concerts and on other occasions throughout the year. A women's a cappella group, The B-Naturals, also performs at these recitals.

Communications

The Grizzly, the Ursinus weekly newspaper, is edited and written entirely by the students, under the mentorship of a faculty adviser. The editor-in-chief, the associate editors, and the business manager are selected on the basis of merit, and the staff is selected by the editors.

The Lantern student literary magazine serves as an outlet for those interested in creative writing, art and photography. It is written and edited by an all-student staff under the direction of a faculty adviser. It is published twice a year.

The Ruby, the college yearbook, is published annually. The student editorial staff is advised and supported by the alumni affairs staff.

WVOU, the student-run campus radio station, presents an eclectic blend of music, from classical to rock, and campus and world news.

Residence Halls

The College offers living accommodations for most of its students. The residence halls and smaller houses provide a variety of sizes and programming styles. Approximately half of the resident students live in traditional residence halls, and half reside in residence houses, which range in size from five to 50 residents. These houses are renovated historic homes, and comprise the Residential Village. The most recent is Wicks House, which houses 20 honors students, each of whom must have a G.P.A. of at least 3.3 and be enrolled in a research/independent study course. Wicks is named in honor of the Rev. Frederick Ross Wicks, Class of 1896, and was remodeled through a gift from his daughter, Katherine Wicks Perry.

New Hall, a 183-bed residence hall, opened in the fall of 2007.

Richter-North Residence Hall opened in the fall of 2002. This 143-bed facility includes 40 double rooms, 35 single rooms and seven suites. A faculty apartment provides a venue for student-faculty gatherings. A wing was named to honor the college's 10th president, the late Richard P. Richter.

Ursinus students may apply to live in residence halls based on personal interests. Special interest houses include residence halls for students interested in writing and literature, international and multicultural activities, service, biology, research, wellness, art and women's studies. Quiet halls, which implement a 24-hour quiet policy, are offered to men and women in both houses and large residence halls. Other residential structures include Beardwood, Brodbeck, Clamer, Cloake, Commonwealth, Curtis, Duryea, Hobson, Isenberg, Keigwin, Lynnewood, Marjorie T. Elliott House, Maples, Musser, Olevian, Omwake, Paisley, Reimert Complex, Schaff, Shreiner, Stauffer, Sturgis, Todd, Wilkinson, Unity, Zwingli, and several additional residence halls with Main Street addresses.

Room and Meals

Students have the option to choose among four meal plans: 19 meals per week, 14 meals per week, 10 meals per week, or 220 meals per semester. First-year students must opt for the 19-meal plan. These plans entitle students to an unlimited selection in the main dining room or to meal credits in Zack's, the campus grill and snack bar. Off-campus and commuter students may purchase blocks of meals. All students, faculty and staff may also purchase Zack Power, which is a declining-balance debit system for use in either the main dining room or Zack's. The main dining room features a wide variety of foods, including a salad bar. Both the main dining room and Zack's are located in Wismer Center.

Student Services

Bridge Program

The Bridge Program is designed to ease the transition between high school and college for incoming historically underrepresented minority students. In addition to taking a course for college credit, Bridge participants live in the residence halls and experience life as college students. Cultural and social activities are provided as one way of acclimating students to the Ursinus and Collegeville communities.

Campus Safety

Centrally located in Wismer Center, the Campus Safety Office provides 24-hour service, seven days a week. An escort service is available to all students, and the service is provided between academic buildings and residences by safety officers. The Safety Department makes regular vehicle, bicycle and foot patrols throughout the campus, and works to sustain a sense of community among faculty, staff and students, while maintaining a safe environment.

All safety personnel participate in in-service training programs and regularly receive updated materials. Officers are certified in basic first aid, C.P.R. and A.E.D. Emergency medical assistance is available through the student EMT group and the local ambulance corps. The department cooperates with the state police agency and maintains a relationship with the Collegeville Police Department, which assists as needed. All crime statistics are reported on forms and in the format required by the Pennsylvania State Police and the Federal Crime Awareness and Campus Security Act of 1990. Campus safety is also responsible for enforcing and facilitating parking according to the guidelines set by the college.

Career Services

The Career Services Office assists students in relating their educational plans to future opportunities and in acquiring life skills essential for success. Through individual career counseling and group workshops and seminars, students are given the opportunity to conduct a thorough self-assessment, explore career opportunities, and develop job searching skills. The Internship Coordinator helps students identify and obtain meaningful internship experiences that will allow them to apply classroom theory to real life situations, to develop their skills, and to gain valuable insight into the world of work.

The Career Services Office maintains a career resource library and a comprehensive web site. These resources provide information about specific career fields, internships, graduate schools, general career planning, and job hunting. The Career Services web site, www.ursinus.edu/career, features UC CareerNet, a web-based career and job management program that allows students to search up-to-date listings of full-time, part-time, internship, and summer opportunities. The Grizzl'E Network is an online mentoring program that features alumni and Ursinus parents who have volunteered to share their experiences and provide advice to students on their career fields and industries.

The Career Services staff networks with regional employers to identify and develop internship and full-time opportunities for students. Representatives from business, government, and nonprofit organizations visit the Ursinus campus throughout the academic year to recruit and interview students for full-time, part-time, and internship positions. The Career Services Office also hosts a Job & Internship Fair in the spring semester, providing students the opportunity to network with employers and develop interviewing skills.

Chaplain's Office

The Office of the Chaplain encourages students to explore and develop their spiritual life as part of a liberal arts education, with the goal of providing students with a means to express their faith, if they wish to do so, in a safe, respectful and open manner. Traditionally, Ursinus has recognized diversity of expression and freedom to worship. The chaplain coordinates campus religious organizations and community service activities.

Under the Office of the Chaplain, a number of worship opportunities in different settings are available to students including the Intervarsity Christian Fellowship, the Newman Society, the Protestant chapel program, the Inter-Faith Outreach, Hillel, the Jewish student organization, and the Muslim Student Association.

Computing Resources at Ursinus College

Ursinus College prides itself on being a liberal arts college of distinction that makes innovative uses of computing and information technology resources. The college is committed to providing all students with access to needed technology resources and to supporting faculty and students in their use of these resources. In addition to innovations in teaching and learning, Ursinus College's technology-rich environment also serves to enhance communication and community and provides a valuable resource that can positively impact all aspects of campus life. The support of these endeavors is made possible through the college's extensive technology infrastructure: the laptop computing initiative, a robust and reliable computing network environment, fully wired dorm rooms and classrooms with high-speed network and internet connections, state-of-the-art projection equipment in classrooms and a high level of technical support.

Computing — Laptop program

All incoming Ursinus College freshmen receive a state-of-the-art laptop computer and printer. The laptop is provided to students ready to hook up to the campus network and Internet and is loaded with the Microsoft Office suite, e-mail and communication tools and other software for academic and nonacademic uses. The laptop is an essential learning tool that will frequently be used regardless of discipline or chosen major. The laptop is replaced with a new laptop at least once prior to graduation for use through the senior year. At graduation students have an option to keep their laptops as part of a lease-buyout program.

Computing — Facilities and Support

A fiber optic backbone network connects all buildings on the Ursinus College campus, including all residence halls. Most houses in the residential village are also connected to the backbone and others are connected through high-speed, leased data lines. Ursinus also provides wireless networking in a number of campus locations and buildings and is continuing to expand wireless access. The network provides reliable, high-speed access to college computing resources and to the worldwide resources on the Internet.

The college has two instructional and general purpose computing labs as well as special purpose work areas and labs equipped for use in specific courses and disciplines. There is also a multimedia development workstation that students can reserve for scanning, making CDs, and using for other multimedia projects.

All students are provided with personal web space on the campus web server for posting personal web pages and are provided with file storage space on the network as well. Faculty and students are connected, inside and outside of the classroom, through the UC Online Web site. UC Online delivers a course and portal environment where students can access materials for all their courses, turn in assignments electronically, and hold online discussions with other members of their classes. Help desk technical support is available online, in person in The Information Technology Department on the third floor of Myrin Library, via email at TechSupport@ursinus.edu, or by phone for extended hours throughout the year.

Counseling and Wellness Services

With the goal of promoting emotional well-being for members of the Ursinus community, the Counseling Office assists students in addressing problems dealing with relationships, anxiety, stress, depression, grief, eating disorders, physical and sexual abuse, traumatic experiences, suicidal ideation, drug and alcohol-related problems, as well as conflict mediation and study skills.

Counseling services are coordinated through the Wellness Center. The Wellness Center staff coordinates the education of students in preventative health, general wellness issues, and assists those students requiring regular medications or needing treatment for illness or injury. Students with medical emergencies are transported by local ambulance to nearby hospitals. Twenty-four-hour, non-emergency medical care is coordinated through the Wellness Center and is available on campus weekdays during daytime hours, and at an off-campus site during non-business hours. Students requiring regular medication, such as allergy injections, may make arrangements through the Wellness Center. The Wellness Center covers routine illnesses and gynecological services.

Multicultural Services

The Director of Multicultural Services plans and coordinates services and programs for traditionally underserved student populations to help ensure the successful completion of college. Support includes, but is not limited to, academic and personal counseling, social and cultural activities, and leadership development. The director also serves as adviser to minority student organizations. This office is located in the Unity House.

Tutorial Services

The Tutorial Services program, located in the Unity House, provides tutoring for Ursinus students and coordinates student-tutors in the Ursinus community.

The Campus Setting

Ursinus' scenic, 170-acre campus is part of the rich higher educational community of the greater Philadelphia region. The attractive campus provides an ideal setting for liberal education. Academic and social life at Ursinus College especially intersect on a graceful plaza and brick walkway linking academic buildings, residence halls and the student center. The plaza provides settings where students and faculty can pause for conversations with one another.

Ursinus students have the educational and aesthetic advantages of the Philip and Muriel Berman Museum of Art, accredited by the American Association of Museums (AAM), which offers exhibitions and events for the campus community, hosts an annual Student Art Show, and maintains an important outdoor sculpture collection. The campus setting is enhanced by the presence of the collection of outdoor sculpture by noted artists, provided through the generosity of the late Philip and Muriel Berman. Sculptures are labeled, and there are print guides available.

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Notable buildings on campus include the following:

F.W. Olin Hall, housing the humanities program, was dedicated in 1990 and funded entirely by a grant from the F.W. Olin Foundation. It contains a 320-seat lecture hall, a 63-seat tiered classroom, a 42-seat tiered classroom, a Writing Center, eight traditional classrooms and four seminar rooms. It houses faculty offices for the departments of English, History, Modern Languages, Classics, and Philosophy and Religious Studies.

Wisner Center is a major social center on campus, providing dining facilities, social lounges, an office complex for student activities, a food court and a multipurpose lounge. The lower lounge is a focal point for student social life, and the setting for various activities, such as films. The lobby was refurbished in 1997, and includes an important bas-relief honoring the classes from the World War II era. The Lower Lounge was renovated to include an expanded snack bar in 2006. A spacious two-story bookstore is part of Wisner Center. The building is named for the late Ralph F. Wisner, 1905, former treasurer of the College and member of the Ursinus College Board of Trustees.

Myrin Library, constructed in 1970, totally renovated in 1988, and again in 2004-05, is both a central repository of information and a comfortable setting for individual and group study. Myrin houses more than 420,000 volumes, 202,000 microforms, 32,000 audiovisual materials, 3,800 e-books, and offers on-site and remote access to approximately 25,900 print, microform and electronic periodical titles.

The library is also one of only three U.S. Government depositories in Montgomery County, Pa. and, as such, receives print and electronic federal documents for the collection. The library is connected to the Online Computer Library Center's bibliographic network and provides a comprehensive inter-library loan service with access to more than 6,700 research collections around the world, comprising over 46 million volumes.

The library is also a member of the Tri-State College Library Cooperative and PALCI (Pennsylvania Academic Library Consortium) and through these memberships offers Ursinus students borrowing privileges at over 100 college and university libraries in the region. There are study facilities for 500 persons in individual study carrels, seminar rooms, private study rooms, group study rooms, and four lounges. The library offers ample connectivity to the College's computer network and the Internet through a wireless connection and also through over 380 direct network connections located throughout the four floors of the building.

Jazzman's Café, located just inside the main library entrance, offers a relaxing space for library patrons to read, work on their computers and enjoy a cup of coffee, a luscious smoothie, or a snack.

During the academic year, the library is open 110 hours per week. Anyone may access the library's website (myrin.ursinus.edu) via the Internet, along with the online catalog and a myriad of other online databases and Internet resources. These electronic resources, collectively known as the Myrin "Virtual Library," are available in the residence halls, in all academic buildings, and remotely through the Internet seven days a week, 24 hours a day.

The library also houses a current events "news" lounge, a microcomputer lab, the Media Services Department, the Information Technology Department, Tech Support Desk, the Pennsylvania Folklife Archives, the Ursinusiana Collection of College-related artifacts, and the offices of the Education Department.

Bomberger Memorial Hall, newly renovated in 2006, houses classrooms, and the offices of the departments of Business and Economics, Anthropology and Sociology, Music, and Politics and International Relations, as well as the offices of Career Services, Campus Chaplain and College Communications. Bomberger Auditorium is home to the Heefner Memorial Organ, a three-manual 62-rank organ dedicated in 1986, the gift of the late Mrs. Lydia V. Heefner in memory of her husband, Russell E. Heefner. Bomberger Hall is a Romanesque structure built in 1891 of Pennsylvania blue marble. The building is named for the first President of Ursinus, Dr. J. H. A. Bomberger, and was made possible by the benefactions of Robert Patterson. In 1981, the restored tower of Bomberger Hall was named Wagner Tower in honor of James E. Wagner, D.D., former president of the Evangelical & Reformed Church (1953-1961), co-president of the United Church of Christ (1957-1961), and vice president of Ursinus College (1962-1968).

Thomas Hall was opened for use in September 1970 and completely renovated in 1991. It is named in honor of the Thomas family, long-time friends of the College. It is the home of the Biology and Psychology departments and the following endowed laboratories: Levi Jay Hammond Laboratory of Comparative Anatomy, the W. Wayne Babcock Laboratory of General Biology, the Anna Heinly Schellhammer Laboratory, and the Parlee Laboratory.

The Kaleidoscope performing arts center was dedicated in 2005. The 55,000-square-foot complex houses the theater and dance academic programs, and has two theaters: the Lenfest Theater, a larger, 350-seat proscenium facility, and a black box theater with a flexible stage and moveable seating. Additionally, the performing arts center houses a large rehearsal studio, wardrobe workroom, scene shop and storage area.

Pfahler Hall of Science houses classrooms and laboratories for work in Chemistry, Physics and Astronomy, Mathematics and Computer Science, and Environmental Studies. A new, state-of-the-art, three-story addition was completed in 1998, and is integrated into the traditional 1932 building. The new addition contains student work spaces, and settings for faculty and students to meet, fostering collaborative teaching and learning in the sciences. Named in honor of Dr. George E. Pfahler, famed radiologist, Pfahler Hall is where Professor John Mauchly built key components of ENIAC, considered the world's first computer, and Nobel Laureate Gerald Edelman (Ursinus Class of 1950) attended classes. Pfahler's well-equipped laboratories contain a 300-MHz nuclear magnetic resonance (NMR) spectrometer, three Fourier-transform (FTIR) spectrometers, an isothermal calorimeter, two gas chromatography/ mass spectrometers (GC/MS), a voltammetric analyzer, four U-V visible absorbance spectrometers, seven high performance liquid chromatographs (HPLC), an atomic absorption (AA) spectrometer, a capillary electrophoresis (CE) apparatus, a Mössbauer spectrometer, and a fluorescence spectrometer.

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The Philip and Muriel Berman Museum of Art was dedicated in 1989 and is located in the original Alumni Memorial Library, built in 1921. The museum offers exhibitions and related programming focusing on an outstanding permanent collection and a variety of touring exhibitions from around the country. The Berman Museum, accredited by the American Association of Museums, provides a valuable cultural resource for the campus community and the surrounding region. The facilities include a multipurpose space for seminars, lectures, and films; a non-circulating art library focusing on important texts related to the collections and specific art reference volumes; two separate exhibition galleries; and complete storage and work areas. For research, the museum's library has an online public access catalogue terminal linked to Myrin Library.

Corson Hall, named in honor of the late Philip L. Corson, a member of the Board of Directors, and his wife, the late Helen Payson Corson, was dedicated in 1970. Located near the main entrance to the campus, it houses the Admissions Office; Dean's Office; President's Office; Development Office; Alumni Relations Office; some computing offices; Student Financial Services; the Registrar's Office and the Business Office.

Ritter Center opened in 1980 and houses a new media laboratory, a television studio, an editing bay, and various auxiliary rooms. It is named in honor of Dr. Rolland A. Ritter, LL.D., 1960, and his wife, Lullis M. Ritter. Ritter Center houses the Department of Media and Communication Studies, as well as the Art Department, which includes studio and gallery spaces, in addition to faculty offices.

The Floy Lewis Bakes Field House encompasses the D.L. Helfferich Hall of Health and Physical Education and the William Elliott Pool. The field house pavilion opened in 2001, while the other buildings were dedicated in 1972 in honor, respectively, of the ninth president of Ursinus College and Dr. William Elliott, board member, neighbor and benefactor of the College. Helfferich Hall now includes completely renovated locker and training rooms, and a two-story, glass-enclosed area for fitness and recreation. The physical education complex serves both men and women with three full-size basketball courts; locker rooms and team rooms; wrestling room; weight room; dance studio; classrooms; a regulation collegiate-sized swimming pool; squash and handball courts, and a gymnastics space. The field house was named for the late Catherine "Floy" Bakes, 1949, a varsity-letter winner in golf, field hockey and basketball. The field house offers a six-lane indoor track. Outdoor athletic and recreational facilities include Price Field, Patterson Field and the new Eleanor Snell Turf Field. Price Field, which includes the baseball diamond, soccer field, and football practice fields, is named for Dr. John Price, 1905, one of the great athletes in Ursinus history. Football games and track meets take place at Patterson Field, named for the College's first benefactor, Robert Patterson. The new Eleanor Snell Turf Field was installed in 2005. The softball field is also named for Eleanor Snell, an outstanding Ursinus educator and coach.

The college also has eight tennis courts, named in honor of the Wilkes family.

Hunsberger Woods: A wooded, 35-acre tract that the college jointly owns with the Borough of Collegeville. It contains running trails, open space and a creek. It is used for environmental studies.

College History

The College history dates back two centuries to a log schoolhouse and the former Freeland Seminary. The College's founders named the College for the distinguished 16th-century Reformation scholar Zacharias Ursinus of the University of Heidelberg, Germany. A state charter was granted in 1869, and women were first admitted to the College in 1880. Ursinus' rich legacy includes a historical relationship with the United Church of Christ. Ursinus is independent, and enrolls about 1,600 full-time students of varied backgrounds.

Presidents of the College

John Henry Augustus Bomberger, 1870-1890

Henry William Super, 1890-1891

George W. Willard, 1891-1892

Henry William Super, 1892-1893

Henry Thomas Spangler, 1893-1904

David Whittstone Ebbert, 1904-1906

Albert Edwin Keigwin, 1907-1912

George Leslie Omwake, 1912-1936

Norman Egbert McClure, 1936-1958

Donald Lawrence Helfferich, 1958-1970

William Schuyler Pettit, 1970-1976

Richard Paul Richter, 1976-1994

John Strassburger, 1995-present

Other Programs

The Center for Continuous Learning

Since 1952, Ursinus has extended its outreach to nontraditional students by means of continuing education programs in harmony with the College's mission of liberal education. Both single college courses and entire degree programs are available for those who wish to pursue academic goals in convenient, flexible, non-traditional evening schedules.

At Ursinus in the evening program, a student may complete 128 semester hours of coursework leading to a bachelor's degree; complete coursework leading to a post-baccalaureate Certificate of Professional Studies or Secondary Teacher Certification; select individual courses of special interest; and in conjunction with St. Joseph's University, complete coursework leading to a Master of Business Administration degree, a Master of Science in Health Administration, an MS in Human Resources, MS in Financial Services, an MS in Education or an MS in Criminal Justice.

For information about credit and noncredit evening programs, consult The Center for Continuous Learning (See Communications with Ursinus College). The center's Web site is <http://eveningprograms.ursinus.edu>.



Admission

The Ursinus College admissions process is highly personal. Students are encouraged to supplement our application with additional information that more fully describes the person beyond the transcript. All material will be carefully read by the admissions staff. Personal essays, teacher recommendations, a campus visit and interview at Ursinus are important in our decision. The application process for Ursinus should start with a visit to the campus. The visit should take place any time from the spring of the junior year to February 15 of the senior year in high school. Tours and interviews are available Monday through Friday 9:00 a.m.-4:00 p.m. Appointments should be made at least one week in advance by calling the Admissions Office.

Ursinus College is a member of the National Association of College Admission Counselors and subscribes to its Statement of Principles of Good Practice. The first step in seeking admission to Ursinus College is to file an application. The Admissions Office will supply forms for this purpose to all who request them. Ursinus requires a \$50 application fee; this fee is waived for first-year candidates who apply online. The applicant must be recommended by the high school guidance office, and must request that an official transcript of his or her secondary school records be sent to the College by the secondary institution. Applicants are required to take the SAT or the ACT and have official test results sent to the Director of Admissions. Certain applicants may waive the test requirements, if their grades and/or class standing meet certain standards (see www.ursinus.edu for further details.) Teacher recommendations are encouraged. A personal interview is strongly recommended; the arrangements are the responsibility of the candidate. The deadline for applying under the Regular Decision plan is Feb. 15. Candidates for Early Decision must apply by Jan. 15 (see below for a description of the Early Decision plan.) Candidates for the Priority Select early action plan must apply by Dec. 1.

Advanced Placement

Students who wish to be considered for advanced courses upon admission may submit the results of the advanced placement examinations given by the College Board. If the scores are satisfactory, the student may be advanced beyond the basic course and credit may be given toward the degree. Certain courses offer no advanced placement; therefore, it is suggested that a candidate consult the admissions office if any question arises. After acceptance for degree standing, a student who wishes to receive transfer credits must receive written permission from the dean of the College or the vice president for enrollment to take a course at another college.

Early Decision and Early Action

The College offers a program of early decision to those students for whom Ursinus College is their first choice. The procedure for making application under the Early Decision plan is the same as outlined above. However, candidates applying under the Early Decision plan have chosen Ursinus College as their first choice and, if admitted, their commitment to attend is binding. Admitted candidates must withdraw all other college applications. Admission decisions are deferred until Regular Decision for those students applying and not admitted under the Early Decision plan. The deadline for applying under the Early Decision plan is Jan. 15. Candidates will be notified of the admission decision by Feb. 1. The Early Action program is new. For further details, see www.ursinus.edu.

Early Assurance

Ursinus College and the Drexel University School of Medicine offer an "Early Assurance Program to Medical School" to a very limited number of exceptionally strong applicants interested in careers in medicine. Ursinus Scholarships accompany this program. To be eligible for consideration for the "Early Assurance to Medical School Program," students must indicate their interest to the Ursinus Admissions Office and apply to the college by November 15. For more details about eligibility requirements, contact the Admissions Office.

International Students

The College encourages international students who have successfully completed their secondary school studies to apply for admission. International students are asked to complete a preliminary application. If their first language is not English, international applicants must take the Test of English as a Foreign Language (TOEFL), the International English Language Testing System (IELTS), or the SAT Subject Test in English, the English Language Proficiency Test (ELPT). International applicants are strongly encouraged to take the SAT. The Certification of Finances Form with two pieces of supporting documentation must be submitted with the application. This documentation is used to issue Form I-20, which is necessary to obtain an F-1 visa from a U.S. embassy or consulate abroad. The International Student Adviser can assist with visa, travel, and other concerns. Supplementary financial aid, a combination of need and merit based aid, is available to international students on a limited basis.

Ursinus recognizes and appreciates the rigor of the International Baccalaureate program. Therefore, students may receive up to one year of college credit for higher level subjects with a score of 5 and higher. Specifically, 6-8 credits will be awarded for such courses. Students may receive advanced standing but no credit for subsidiary courses in consultation with the academic dean and the appropriate department. Students may also meet the college's foreign language requirement, with a Subsidiary language course other than English, in consultation with the academic dean and the appropriate department.

Up to one year of academic credit may also be awarded for completion of the German Abitur, European Baccalaureate, French Baccalaureate, 13th year of the Canadian educational system, British "A" Levels or Advanced Placement courses. Please contact the Office of Admissions for more details.

Junior Admission

A limited number of outstanding high school juniors who have completed all or nearly all requirements for graduation from high school may be considered for admission. Such students will be considered only upon the strong recommendation of the guidance counselor and with the assurance that the student will receive his or her high school diploma either before or upon successful completion of the freshman year in college. Outstanding juniors may apply for admission in the late spring or during the summer preceding the senior year. An applicant must be recommended by two teachers and the high school guidance office, and must request that an official transcript of his or her secondary school records from 9th through 11th grades be sent to the College by the secondary institution. He or she also should have junior year SAT results sent to the Dean of Admissions. We strongly recommend that all candidates take SAT subject tests. The personal interview is strongly recommended, the arrangements for which are the responsibility of the candidate.

Notification of Admission

When candidates for admission are notified of acceptance by the College, each must make an advance payment of \$500 in accordance with the provisions of the letter of acceptance. This payment will be held in an escrow account until the student is graduated or withdraws from the College. The payment is non-refundable and forfeited if the candidate does not enroll.

Placement in Foreign Languages

Students who wish to take the same foreign language in college that they took in high school must take the language placement test given by the modern languages department at Ursinus. The result of this test, combined with their high school language experience, will determine the students' language placement at Ursinus.

Readmission

(See The Ursinus Plan for Liberal Studies, page 45.)

Requirements

A candidate for admission to the freshman class must be a graduate of a secondary school by the time the freshman year begins. If the applicant is a graduate of a four-year high school, he or she must offer for admission at least 16 units, which are to be distributed as follows:

Basic Academic Credits (11 units):

- English, Four years, Four units
- Elementary Mathematics (Algebra and either Geometry or Pre-Calculus), Three Units
- Science, One Unit
- Social Studies, One Unit
- Foreign Language, Two Units in One Language.

Additional Academic Credits (at least 2 1/2 units):

- Calculus
- Advanced Mathematics
- Statistics
- Computer Science
- Solid Geometry
- Trigonometry
- Science
- Social Studies
- Foreign Language

Electives (Maximum of 3 1/2 units):

Not more than one unit will be granted for any single elective

- Music (history or appreciation)
- Art (history or appreciation)
- Studio Art

Candidates graduated from a three-year high school should offer at least 12 units, which must include the basic credits above. Not more than one unit may be presented from the group designated as electives. Ursinus College accepts the International Baccalaureate degree and grants advanced standing. IB students are encouraged to contact the Admissions Office for details regarding advanced standing. Applicants whose preparation does not coincide precisely with the foregoing outline may, in exceptional cases, be admitted to the college if, in the judgment of the Admissions Office, they are qualified to do college work satisfactorily.

Special Students

A limited number of applicants who are not candidates for degrees may be admitted as special students, provided they have satisfactory preparation for the college courses they wish to pursue. Special students who reside at the College must register for at least 12 credit hours of course work in each semester. They are subject to the same regulations as other students.

Students with Disabilities

Ursinus College is in compliance with the Americans with Disabilities Act. Prospective students with disabilities should advise the admissions office. A counselor will discuss educational opportunities and note what reasonable accommodations might be required to succeed at the college.

Tests

Candidates for admission to the freshman class are required to take the SAT Reasoning Test or the ACT. Although not required, SAT Subject Tests are recommended. Full information concerning the dates of the administration of these tests can be obtained from the high school guidance office or by writing directly to the College Board, P.O. Box 592, Princeton, N.J. 08540.

The College Board number for Ursinus College is 2931.

In addition to the SAT, foreign applicants must take the Test of English as a Foreign Language (TOEFL) if their first language is not English.

SAT Score Report Option

Reporting of the SAT score or other standardized test results to the Ursinus Admissions Office is optional if: a) your high school reports class rank and you are in the top 10 percent, or b) your high school does not report class rank and you have a 3.5 GPA or better on a 4.0 scale.

Transfer Students

To transfer to Ursinus College, an applicant must request that each institution he or she has attended, including the secondary school, send to the vice president for enrollment a transcript of his or her academic record. In addition, recommendations from two professors and a letter of personal clearance from the dean of students is required if the applicant has been a full-time student during the preceding year. It will be helpful if the candidate sends a catalogue of the college he or she has been attending, marked to indicate the courses taken. Credit will be given for courses taken at the credit granting institution for which we offer a reasonable equivalent and in which a grade of C (2.00) or better has been earned.

A maximum of 64 hours of work taken elsewhere can be credited to students transferring to Ursinus College. Transfer students also participate in the Ursinus College laptop program, adhering to the same replacement schedule as their cohort group.

Financial Information

Student Charges

For 2008-2009, the following rates apply for students: tuition, \$36,750; room and board, \$8,800, and laptop insurance, \$160.

Special and part-time students are charged at the rate of \$1,148 per credit hour. Part-time students registered for 12 or more credit hours will be charged full tuition.

Payments are made as follows: new students, \$500 reserve deposit as requested. All students pay half of the annual charges in August. The second half is due in January.

A graduated late-payment fee is charged each account which remains unpaid at the end of the fourth week of each semester. See the "Explanation of Charges" section.

When the student is a recipient of an Ursinus College scholarship award, credit for one-half the value of the annual award will be applied to the account for each semester bill.

For those who prefer to pay college costs on a monthly basis, the college offers a 10-month, no interest payment plan managed by Tuition Management Systems (TMS) in Boston. TMS also offers a two-installment credit card payment plan with 50% due August 1 and 50% due January 1 to TMS. A convenience fee-per-transaction amount is charged as dictated by the credit card companies.

While the College makes available the payment plans noted, parents and students may choose from any available programs that provide for payment to the College as indicated on the student bill. For additional financing options, families may refer to www.simpletuition.com/ursinus.

The Student Financial Services Office administers a comprehensive program of aid from federal, state, Ursinus College and other private sources. Approximately 85 percent of all students receive some form of assistance in paying tuition.

Explanation of Charges

Application Fee: A fee of \$50 is paid by the candidate at the time the application is filed. This fee is not refundable and is not applied toward the student's bill.

Reserve Deposit: Upon acceptance by the college, the applicant must make a reserve deposit of \$500 by May 1. This payment will be held in an escrow account until the student is graduated, or withdraws from the College. At that time, the balance remaining after payment of any damage charges to College property, parking fines, library fines, or similar charges, will be refunded to the student. If the student fails to complete matriculation, this payment is forfeited.

Tuition: Covers classroom instruction, use of libraries, gymnasium and campus facilities, and

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supports the programs of the Campus Activities Board. The tuition charge also covers a wellness program, including routine physician and nursing services, both on campus and in a local physician's office, and supports a wellness coordinator's services.

Room and Board: Charge covers use of a residence hall room and a meal plan for the period that classes are in session.

The College reserves the right to make reasonable adjustments in tuition and room and board fees at the beginning of any term to cover unforeseen costs.

Laptop Insurance: A mandatory charge is applied to the student bill for accidental damage to or theft of student laptops; the laptops are also fully covered under the manufacturer's extended warranty. Details regarding deductibles and warranty repairs and replacement can be received from the Information Technology Office.

Student Medical Insurance Option: All full-time day students are required to have some form of medical insurance. The College will provide an accident and sickness insurance policy to students who are without other coverage. Students not showing proof of coverage as requested by the Wellness Center will be charged for the College plan on their fall semester bill. Details of the insurance plan are available in the Wellness Center and on the Ursinus Website.

Should the student withdraw or be dismissed during the academic year, the insurance will remain in force. No refund will be made of the cost of the insurance.

Art Materials Fee: A materials fee is charged the account of all students taking studio art courses.

Applied Music Lessons Fee: A fee is charged the account of all students taking instrumental and vocal music lessons.

Transcript Fee: A charge of \$2.00 is made for each transcript of a student's record after the first. Requests for transcripts should be made to the Office of the Registrar. No grade reports or transcripts will be issued if there is an unpaid balance on a student's account or if the student is in default on a student loan.

ID Card Fee: No charge is made for the issuance of the first ID card. If the card is lost, a charge of \$10.00 will be made for its replacement.

Late-Payment Fee: A late-payment fee, as determined by the schedule below, will be applied to any balance due at the end of the fourth week of each semester. The amount charged depends upon the size of the outstanding balance.

Outstanding Balance	Fee
\$100 - 500	\$50
\$501 - 1,000	\$100
\$1,001 - 2,000	\$150
\$2,001 - 4,000	\$200
\$4,001 - 6,000	\$250
\$6,001 - 8,000	\$300
\$8,001 - 10,000	\$350
\$10,001 or above	\$400

Regulations

Bills for student fees are issued approximately 45 days before the beginning of each term. A student's bill must be settled no later than the date indicated on the statement.

Any student who is indebted to the College or to any of its departments or agencies will not be permitted to register at the beginning of any term, and all items due the College from a candidate for graduation must be paid before the candidate may be presented for a degree. Delinquent accounts will be placed for collection, and the College will add collection costs to the delinquent amount. The total amount will then be payable in full.

Students who are absent from College because of sickness and retain their place in class pay student fees in full during their absence, except that when the absence is continuous over a period exceeding four weeks, resident students are allowed a pro rata rebate of the dining hall charges for each full week of absence.

Changes in marital status should be reported to the College immediately. Address changes must be reported to the Registrar's Office, Corson Hall, as soon as possible.

A student who voluntarily withdraws from the College must notify the dean of the College in writing and settle all bills within 30 days or be liable for dishonorable dismissal.

The College reserves the right to exclude at any time students whose conduct or academic standing renders them undesirable members of the College community, and in such cases the college will determine whether any fees are refundable. Other regulations and procedures of vital concern to students are contained in the pamphlets, Ursinus College Student Handbook and the financial aid brochure.

Refund Policy

Upon a student's dismissal or withdrawal from the College prior to the first day of class, the student will receive a full refund of monies paid, less \$500.00 to cover application, enrollment and registration charges. Additionally, any student indebtedness to the College or to any of its departments or agencies will be deducted from any remainder due the student. No changes in student charges are made because of changes in enrollment status after the second week of classes.

Ursinus College will refund tuition and fees to students using the table below. There is NO refund of amounts paid for dormitory rooms after the first day of classes. The refund for meal plan charges is calculated on a pro-rate basis from the official date of withdrawal or dismissal. Institutional financial aid will also be adjusted using the percentages found in the table.

Week #	Percent Refunded
1	87.5 percent
2	75.5 percent
3	62.5 percent
4	50.5 percent
5	37.5 percent
6	25.5 percent
7	12.5 percent
8 - 10	00.5 percent

Date of withdrawal shall be the date on which the student notifies the dean of the College in writing of such action, or the date on which the College determines that the student has withdrawn, whichever is earlier. Date of dismissal shall be the date on which the College has notified the student of such action.

Return of Title IV Funds Policy

The Student Financial Services Office is required by federal statute to recalculate federal financial aid eligibility for students who withdraw, drop out, are dismissed, or take a leave of absence prior to completing 60% of a semester. The federal Title IV financial aid programs must be recalculated in these situations.

If a student leaves the institution prior to completing 60% of a semester, the Student Financial Services Office recalculates eligibility for Title IV funds. Recalculation is based on the percentage of earned aid using the following Federal Return of Title IV funds formula:

- Percentage of semester completed = the number of days completed up to the withdrawal date divided by the total days in the semester. (Any break of five days or more is not counted as part of the days in the semester.) This percentage is also the percentage of earned aid.

Funds are returned to the appropriate federal program based on the percentage of unearned aid using the following formula:

- Aid to be returned = (100% of the aid that could be disbursed minus the percentage of earned aid) multiplied by the total amount of aid that could have been disbursed during the semester.

If a student earned less than was disbursed, the college would be required to return a portion of the funds and the student would be required to return a portion of the funds. It must be noted that when Title IV funds are returned, the student borrower may owe a debit balance to the college.

If a student earned more aid than was disbursed, the college would owe the student a post-withdrawal disbursement which must be paid within 120 days of the student's withdrawal.

The college must return the amount of Title IV funds for which it is responsible no later than 30 days after the date of the determination of the date of the student's withdrawal.

Refunds are allocated in the following order: Unsubsidized Federal Stafford Loans, Subsidized Federal Stafford Loans, Federal Perkins Loans, Federal Parent (PLUS) Loans, Federal Pell Grants for which a Return of funds is required; Federal Supplemental Opportunity Grants for which a Return of funds is required, and other assistance under this Title for which a Return of funds is required (e.g., LEAP).

To supplement the College's refund policy, a Tuition Refund Plan is offered through A.W.G. Dewar, Inc. This plan provides for up to 100 percent refund of tuition and room and board charges should the student be forced to withdraw for medical reasons at any time during the semester. Information on the plan and the insurance premium is available through the Student Financial Services Office.

Scholarships and Financial Aid

Student Financial Assistance

The primary mission of the Student Financial Services Office at Ursinus is to provide | counseling and assistance to those students who would be unable to attend college without such aid. An application for financial aid does not hinder a student's chance for admission to the College. Awards are made without reference to ethnic origin, religion, sex, handicap or marital status.

The financial aid program assists full-time degree candidates in meeting college costs through institutional grants, scholarships, loans, and employment, as well as aid through state and federally supported grant and loan programs. (Part-time degree candidates may qualify for Federal Pell Grants, Federal Supplemental Educational Opportunity Grants, Federal Perkins Loans, state grants, Federal Work Study, Charlotte Newcombe Scholarships, or Federal Stafford Loans.) Ursinus College is pleased to offer merit scholarships and also recognizes merit awards given by outside organizations.

Financial aid may be offered in a single form or in combinations of scholarships, grants, loans, and employment. The financial aid package is based on demonstrated need as determined through federal and institutional methodology. Proven academic excellence and leadership abilities may also be considered.

Application Procedure

All prospective first-year students wishing consideration for institutional financial aid must submit a Free Application for Federal Student Aid (FAFSA) and a CSS PROFILE application, with all questions completed, no later than Feb. 15. All late applications will be considered if funds are available. The FAFSA and the student's individual state application, where applicable, are the only applications required to be filed for state grant consideration. These forms must be filed for each year the student wishes to continue aid.

The FAFSA may be completed online at www.fafsa.ed.gov (Federal School Code 003385). To register online for the CSS PROFILE go to www.collegeboard.com (School Code 2931). Freshmen and transfer applicants should complete both the FAFSA and the CSS PROFILE by February 15 to ensure receipt of an award notice by April 1. The College requires the submission of signed parent and student federal tax forms, W2 forms, and the Annual Institutional Verification Form by May 1, to be considered for all types of aid offered by Ursinus College.

Upper-class applicants should submit the Renewal FAFSA online by April 15. Students should apply online at www.fafsa.ed.gov. Upper-class award notices will be sent by early to mid-June if all required documentation is received in the Student Financial Services Office. The college requires the submission of signed parent and student federal tax forms, W2 forms, and the Annual Institutional Verification Form by April 15 to be considered for all types of aid offered by Ursinus College.

An independent (self-supporting) student must file the FAFSA and CSS PROFILE application under the same guidelines as above. All students who enter Ursinus as dependent aid filers will remain dependent for all Ursinus funds for the entire period of enrollment. Independent students are those who are over 24 years of age; orphans or wards of the court; married; veterans; parents

of dependent children; graduate students; or those determined as independent by the Student Financial Services counselor with appropriate documentation. All students should realize that financial aid is not automatic and requires formal application for each year that aid is expected. Financial aid normally continues at the same level unless financial need deviates from prior years or federal regulations change. Full-time attendance is required for all scholarship and need-based institutional aid. International students must submit the Declaration of Finances and Application for Foreign Students, available from the Office of Admissions.

Ursinus College Scholarship Programs

Ursinus College offers an extensive financial aid program designed to recognize the high school achievements of students, while at the same time providing access to students from a wide range of economic backgrounds. That is why Ursinus awards financial aid based both on merit and financial circumstances.

The College's scholarship, grant, loan, and student employment programs totaled nearly \$27 million in 2007-2008. Of the entire student body, approximately 85 percent receive some form of financial aid, whether it be through student employment, loans, college funds, or scholarships. Every student submitting the FAFSA and CSS PROFILE will be considered automatically for all aid programs administered by the College.

Ursinus College Scholarships

As part of the financial aid program at Ursinus, the College awards merit scholarships to recognize those students who by their strong high school performances have demonstrated the potential to make special contributions to our College community. Merit scholarships recognize achievements which are consistent with the high ideals of the Ursinus educational mission: strong academic achievement and personal qualities which promise the potential to provide leadership and to lead lives of service, acting as worthy role models for others.

Ursinus Scholarships: Ursinus Scholarships are awarded to applicants who have earned the College's recognition by their academic and extracurricular achievement in high school. Ursinus Scholars are chosen on the basis of their overall high school achievement and their potential to contribute to the College community. To be eligible, candidates must apply for admission to the College and arrange for an admissions interview by February 15. Ursinus Scholars are awarded up to \$17,500 annually, renewable for four years if the student maintains a 2.67 yearly GPA and maintains standards of satisfactory academic progress.

Steinbright Scholarships: Ursinus College awards six \$27,500 scholarships to applicants who attend high school in Berks, Bucks, Chester, Delaware, Montgomery, or Philadelphia counties in Pennsylvania. The College will award one Steinbright Scholarship in each county. Steinbright Scholarships are awarded to those outstanding students who through superior high school achievements demonstrate the greatest potential of fulfilling the Ursinus mission by becoming independent, thoughtful and inquiring adults, who will live creatively and usefully and serve society by providing leadership. To be eligible, candidates must apply for admission to the College and arrange for an admissions interview by February 15. The College will invite finalists to campus in March for individual Scholarship Committee interviews. Steinbright Scholarships are renewable for four years if the student maintains a 3.20 yearly GPA and maintains standards of satisfactory academic progress.

Ursinus College Financial Aid Programs

Ursinus College Fund: Funds awarded by the College do not have to be repaid. Recipients must have demonstrated financial need each year, as determined by the results of the FAFSA and the CSS PROFILE* application, and are expected to remain in good academic and social standing.

W.W. Smith Scholar Grants and Prizes: The W.W. Smith Charitable Trust of West Conshohocken, Pa., funds a program of \$2,000-\$2,500 Scholar Grants to "needy and worthy, full-time" students. In addition, two top senior Scholar Grant winners receive \$5,000 W.W. Smith Prizes. Selections are made by a scholarship committee.

Student Employment: The College provides students with the opportunity to earn part of their college expenses through campus employment in more than 500 positions on campus. Federal Work-Study (FWS) will be offered to eligible applicants to meet any remaining need after grant, scholarship, and loan assistance has been utilized. Priority in job placement is given to students assigned to FWS. Students not eligible for FWS will be placed on the college payroll if possible. Working just 12 hours a week, a student can expect to earn about \$2,000 during the academic year. Examples of the positions available are: dining hall helper; lab assistants in biology and chemistry; library assistants; house managers in the Student Center; bookstore clerks; departmental typists; administrative clerks, and maintenance helpers. Students are employed on a contractual basis, and the contract can be obtained from the Student Financial Services Office upon arriving on campus in the fall. Students are permitted to work a maximum of 20 hours per week. Off-campus positions are made available by private employers, and are advertised by the Career Services Office.

Federal and State Programs

Federal Pell Grant: This is a federal grant made available to students with exceptional financial need. Application is made by filing the Free Application for Federal Student Aid (FAFSA). After filing, students receive a Student Aid Report (SAR) online, with a family contribution indicated. The maximum Federal Pell Grant for 2008-2009 is \$4,731.

Federal Supplemental Educational Opportunity Grants (FSEOG): These grants are federally funded and must be designated by the College to students with substantial financial need, primarily to those receiving Federal Pell Grant assistance. The application is made by filing the FAFSA. The average grant is \$500. The FSEOG Program is subject to change according to government regulations. Those filing the Free Application for Federal Student Aid (FAFSA) with Ursinus will be considered for this program.

Federal Perkins Loan: This federally funded student loan is offered to applicants with high financial need, especially when state or Federal Pell Grant assistance is negligible. Loans from \$500 to \$4,000 are awarded with the total not to exceed \$15,000 for the four years of undergraduate study. The interest rate is 5 percent. Federal Perkins Loans must be paid within 10 years after a student graduates or leaves the College for other reasons, with repayment beginning nine months after this established date. If a student continues with graduate study, repayment is deferred as long as half-time enrollment is maintained. Upon graduation, repayment begins on a normal schedule. The Federal Perkins Loan program is subject to changing Federal regulations.

State Grant Programs: Many states have a separate state grant application or a State Specific Financial Aid Form. Students must contact their state agency to determine what form(s) need to be filed. In Pennsylvania, students must file a FAFSA by May 1. The maximum Pennsylvania state grant for 2008-2009 is \$4,500, but is subject to change by the Pennsylvania legislature.

* Applies to incoming freshmen only.

Federal Subsidized Stafford Loans: Beginning with the 2008-2009 academic year, freshmen may borrow up to \$3,500, sophomores may borrow up to \$4,500, and juniors and seniors may borrow up to \$5,500 annually. Repayment of principal and interest is deferred until six months after graduation or withdrawal. These loans are based on financial need for all families. The loan amounts, interest rates, and eligibility rules are subject to change by the federal government.

Federal Unsubsidized Stafford Loans: Unsubsidized Stafford Loans are effective for loans made for periods of enrollment beginning on or after Oct. 1, 1992. The same terms and conditions exist as Stafford Loans, except that the borrower is responsible for interest that accrues while he or she is in school. This program is open to students who may not qualify for subsidized Stafford Loans or may qualify for only partially subsidized Stafford Loans.

Sources of Assistance Not Based on Need

Parent Loan for Undergraduate Students Program (PLUS): This is a federally supported program of loans to parents of dependent undergraduate students. The maximum amount a parent may borrow for one student in an academic year is the cost of attendance less any financial aid (for loans made on or after July 1, 1993). Please note that repayment is required to begin within 60 days after the loan disbursement, unless otherwise indicated by the lender. Parents who have no adverse credit history are eligible for PLUS loans. Loan applications are available at local banks and other lending institutions.

Tuition Exchange: Ursinus College is a member of the Tuition Exchange Program. Children of employees of schools participating in the program may apply. Requests will be considered upon application. Those students who receive aid through the Tuition Exchange Program are not eligible for additional Ursinus College funds.

Other Sources of Aid: In addition to the programs described above, students should investigate other grant and scholarship programs sponsored by a variety of private organizations, including business corporations, foundations, civic clubs, and the like. High school guidance counselors usually maintain lists of the local organizations sponsoring awards for college-bound students.

Satisfactory Progress

Colleges and universities are required to establish minimum standards of satisfactory academic progress for students receiving financial aid. Ursinus College has established these standards: All students enrolled at Ursinus College are subject to the academic standards of the College. Qualitatively, the Committee on Academic Standards and Discipline receives the record each semester of every student with an average below 2.00. Corrective action is recommended in each case and progress is closely monitored. If the Committee sees no immediate and significant improvement, the student is determined to have failed to make satisfactory academic progress and is dismissed from the College by the faculty. All financial aid the student is receiving is terminated. Students receiving financial aid must also meet the following quantitative requirements:

Full-time Student: A full-time student (12-18 credits per semester) must successfully complete 24 semester hours of academic work in the two preceding semesters (summer academic work, where applicable, may be included) in order to be eligible to continue receiving federal, state, and institutional financial assistance.

Three-quarter-time Student: A three-quarter time student (9-11 credits per semester) must successfully complete 18 semester hours of academic work in the two preceding semesters (summer academic work, where applicable, may be included) in order to be eligible to continue receiving federal, state, and institutional financial aid.

Half-time Student: A half-time student (6-8 credits per semester) must successfully complete 12 semester hours of academic work in the two preceding semesters (summer academic work, where applicable, may be included) in order to be eligible to continue receiving federal, state, and institutional financial aid.

In each classification, course incompletions, course withdrawals, and noncredit remedial courses are not counted. If a student must repeat a course for major or degree requirements, it may be counted toward the annual required credits and grade average.

A full-time student is expected to complete all degree requirements within a maximum of 10 semesters and summer school (5 years).

Satisfactory Academic Progress Chart

Academic Years Completed	1	2	3	4	5	6	7	8	9	10	SS
<i>Number of Credits Successfully Completed:</i>											
Full-time	24	48	72	96	120						128
3/4-time	18	36	54	72	90	108	126				128
Half-time	12	24	36	48	60	72	84	96	108	120	128

Special Note: The requirement for a bachelor's degree is 128 credits. To graduate in four years, a student must enroll for a minimum of 16 credits per semester. Enrolling for 12 credits (minimum for full-time status) extends graduation one full calendar year. Since some financial aid programs have eight (8) semester limits, financing of the fifth year may be quite difficult. Any student receiving financial aid who does not meet minimum satisfactory academic progress will be notified in writing by the Student Financial Services Office.

If financial aid is denied for reason of not meeting the College's standards of satisfactory academic progress, the student does have the right to appeal, in writing, first to the Student Financial Services Director and secondly to the Scholarship Committee. If the appeal is denied, the student is considered for financial aid only when he or she completes the credits needed for making normal satisfactory academic progress for all the semesters that the student had been receiving financial aid.

This evaluation of a student's academic standing and progress to determine Federal, state, and institutional financial aid eligibility is made once a year or after two semesters of academic work. Students failing to progress on schedule at the end of each initial semester are placed on probation in order to provide them an early warning.

Both deficiencies in grades or earned credits may be made up by taking summer school courses approved by the Dean's Office to be taken at another college.

The Ursinus College financial aid brochure, *Affordable Excellence*, provides detailed information on all programs and is available in the Admissions Office and the Student Financial Services Office.



Academics: The Ursinus Plan for Liberal Studies

The Educational Philosophy of Ursinus College

The mission of Ursinus College is to enable students to become independent, responsible and thoughtful individuals through a program of liberal education. That education prepares them to live creatively and usefully, and to provide leadership for their society in an interdependent world. Liberal education is provided through an academic program that empowers the intellect, awakens moral sensitivity, and challenges students to improve society. Students gain intellectual curiosity, the capacity to think analytically, critically, and creatively, and the skill to express thoughts with logic, clarity, and grace. Further, they develop a deepened sense of human history and an understanding of who they are as persons, what they ought to do as citizens, and how they best can appreciate the diversity and ambiguity of contemporary experience.

Liberal education is more than a set of courses; it requires students to integrate insights of various academic disciplines, and to participate actively in the learning process. It takes place best among students of diverse backgrounds actively searching for meaning and purpose in their lives. In order to help students appreciate the diversity and ambiguity of their world, the college seeks to include issues of race, class, and gender across the curriculum.

The Liberal Studies Curriculum

The liberal studies curriculum is grounded in the assumption that individual human beings have intrinsic value. Individuals, however, live in community with other human beings. The challenge of liberal studies is to create independence of thought and spirit while fostering awareness of community connection and obligation.

To meet this challenge, the Ursinus liberal studies curriculum has three components:

The Core, a broad-based common experience to give all students the communications skills, and the scientific, cultural, and historical literacy that are fundamental to a liberally educated person;

Study in Depth in one or more of 27 academic majors, to provide the basis for lifelong engagement in intellectual inquiry;

The Independent Learning Experience prepares students to become independent, life-long learners. Each student must undertake one of the following: a) independent research or creative project; b) internship; c) study abroad; d) student teaching; e) Summer Fellow Program or a comparable summer research program, or f) for pre-engineering students, successful completion of the first two years of engineering school.

The Core

The Common Intellectual Experience Seminars (CIE-100 and CIE-200 — the Common Intellectual Experience sequence) introduce students to the intellectual life of the college through a shared interdisciplinary inquiry during two integrated seminars, one taken in the first semester of the first year, and one completed in the second semester of either the freshman or sophomore year. To sharpen intellectual discipline and promote understanding across cultures, students take two semesters of a foreign language (modern or classical; ESOL-100 may be substituted for students who are eligible.)

One course in mathematics and one in a laboratory science help students enhance their deductive reasoning skills and promote scientific literacy, and foster awareness of the issues of science as they influence the individual and society. Because students need to be able to deal with quantitative materials, they must be sure that one of their courses is designated a “Q” course. The complex relationship of the individual and society is explored in a social science course, and a view of the human experience is promoted in a humanities course. Both are further promoted through two diversity courses — one focusing on diversity within the United States, and another examining the issues from a global perspective. A greater appreciation for making and regarding art is developed through an art course. Each of these one-course divisional requirements, as well as the diversity courses, help to reinforce and extend the intellectual inquiry begun in CIE-100 and CIE-200, helping students to see the complementary natures of disciplinary and interdisciplinary investigation.

The Core Requirements

- CIE-100 and CIE-200 (The Common Intellectual Experience sequence)
- Two courses of study of the same foreign language (modern or classical or ESOL-100 for eligible students)
- One course in mathematics. This deductive reasoning requirement may also be fulfilled by MATH/PHIL-260 (Logic).
- One laboratory course in the sciences. IDS-151Q or NEUR-120Q may be used to fulfill this requirement.
- One course in the social sciences (SS).
- One course designated as fulfilling the humanities requirement (“H”)
- Two courses emphasizing diversity; one course with an emphasis on diversity in the United States (“D”), and one Global Study course (“G”), examining a culture or cultures whose origins and development lie outside those of Western Europe and the United States. The two courses must have different course prefixes and only one may be in the student's major.
- One three- or four-credit course (or four credits) in art, music, theater, or dance. Courses in creative writing (ENGL-205, 206, 209, 302, 402) and media production (MCS-210 or 212) also fulfill this requirement.

Note: Students must be sure that one of their courses is designated a quantitative reasoning (Q) course.

For most students the Core will comprise 11 four-credit courses, or 44 credits, representing slightly more than one-third of the 128 credits needed for graduation.

Study in Depth

Through study in depth, students learn the modes of inquiry of an academic discipline, develop the insight to make informed judgments among conflicting methods and interpretations, and acquire the ability to make connections among different disciplines. Study in depth is achieved by the completion of a major.

Majors include at least 32 credit hours in the major department or discipline, at least one writing-intensive (W) course, an oral presentation, and a capstone experience involving students in focused inquiry.

Majors

The following majors have been approved by the faculty:

- American Studies
- Anthropology and Sociology
- Art
- Biochemistry and Molecular Biology
- Biology
- Business and Economics
- Chemistry
- Classics
- Computer Science
- Dance
- East Asian Studies
- English
- Environmental Studies
- Exercise and Sport Science
- French
- German
- History
- International Relations
- Mathematics
- Media and Communication Studies
- Neuroscience
- Philosophy
- Physics
- Politics
- Psychology
- Spanish
- Theater

Student-Initiated Majors

Students who complete the freshman year and whose major interests span two or more recognized academic fields, if they have a cumulative B average (3.0 or above), may arrange a specialized major which combines these two fields, such as biophysics, biopsychology, chemical biology or comparative literature.

In order to set up such a specialized major, the student and the appropriate department heads, in consultation with other department members, must draw up a written statement of all courses and additional major requirements, which may include a comprehensive or an oral examination by members of both departments at the end of the program of studies. This proposed course of studies must then be submitted to the Dean of the College, whose approval is needed.

Upon successful completion of the major requirements so specified, the student will graduate in the subject field specified on the program proposal.

Minors

Students have the opportunity to develop a secondary academic specialty by developing a minor concentration.

The following minor concentrations have been approved by the faculty:

- Accounting
- African American and Africana Studies
- American Studies
- Anthropology
- Applied Ethics
- Art
- Art History
- Astronomy
- Biology
- Biostatistics
- Chemistry
- Coaching
- Computer Science
- Creative Writing
- Dance
- East Asian Studies
- Economics
- Education, Elementary
- Education, Secondary
- English
- Environmental Studies
- Film Studies
- Finance
- French
- Gender and Women's Studies
- German
- German Studies
- Greek
- History
- Human Behavioral Development
- Human Performance Assessment
- International Business
- International Relations
- Japanese
- Latin
- Latin American Studies
- Management
- Mathematics
- Media and Communication Studies
- Music
- Neuroscience
- Pennsylvania German Studies
- Philosophy
- Physics
- Politics
- Psychology
- Religious Studies
- Sociology
- Spanish
- Statistics
- Theater
- Wellness/Fitness

Students who have interests spanning more than one department may design individual minors in consultation with the chairpersons of the involved departments.

Independent Learning Experience (ILE)

A major academic goal of a liberal arts education is to transform students in meaningful and positive ways. Our mission statement describes specifically the goal of enabling students "to become independent, responsible and thoughtful individuals." The Independent Learning Experiences (ILE) will help students take responsibility for their education and foster student initiative and independence by enhancing their confidence in their own abilities.

The ILE requirement is fulfilled by a completion of a single project of at least three credits in a single semester or summer in one of these categories: (a) an independent research project or a creative project (including but not limited to honors); (b) an internship; (c) approved study abroad programs; (d) student teaching; (e) a project in the Summer Fellows Program or a comparable summer research program; or (f) for pre-engineering students, successful completion of the first of two years at the engineering school.

Foreign Language Integration Option (FL)

This program allows students to use their language abilities in courses outside the language departments. Faculty members in the disciplines who wish to make their courses available for the foreign language integration option decide, in conjunction with individual students and in consultation with a member of the modern or classical language departments, on the amount and type of language work involved. This work typically includes readings from books, newspapers or articles, or paper writing, and it substitutes for English language work.

Requirements for Graduation

The requirements for the degree of Bachelor of Arts (B.A.) or Bachelor of Science (B.S.) are:

1. The completion of 128 semester hours, of which no more than 12 may be from courses with numbers lower than 100, and all the courses required by the faculty, including the courses required for a major; and

2. A GPA of C (2.00) or above for all courses taken at Ursinus College.

To qualify for the degree of Bachelor of Arts or Bachelor of Science, a student must have successfully completed a minimum of 64 semester hours of credit at Ursinus. Half of the semester hours of credits required in the major department must be taken at Ursinus; exceptions may be granted by the dean of the College. A degree from the College requires that a student spend the two semesters of the senior year as a full-time student (this regulation does not apply to students receiving a degree from the Center for Continuous Learning.) A full-time student may not take fewer than 12 semester hours per semester. The normal load for a term is 16-18 credits. It is recommended that students normally take no more than 16 credits per semester. Students may register for up to 18 credits with the approval of their advisers. They may not register for more than 18 credits in any semester without special permission from the dean of the College. Students carrying fewer than 12 hours are not permitted to remain or to become residents of College residence halls.

All requirements for graduation must be satisfied before the end of the last day of examination week preceding commencement. Each student must bear responsibility for fulfilling the requirements for graduation.

Degrees

Ursinus College confers the degrees of Bachelor of Arts and Bachelor of Science. The Center for Continuous Learning at Ursinus College also confers a Bachelor of Business Administration. For specific requirements of the curricula leading to each of these degrees, see departmental requirements and the catalogue of the Center for Continuous Learning. Degrees are conferred only at commencement and candidates must present themselves in person.

A student in good standing who has earned a minimum of 96 semester hours of credit and who withdraws from the College to enter an accredited graduate or professional school may, with the approval of the faculty, receive a baccalaureate degree from Ursinus after earning any doctoral degree from an accredited institution.

The College may confer the honorary degrees of Doctor of Divinity, Doctor of Humane Letters, Doctor of Pedagogy, Doctor of Science, Doctor of Letters, and Doctor of Laws on persons whose distinguished ability and service have been deemed worthy of such recognition by the faculty and the Board of Directors.

Second Bachelor's Degrees

We usually recommend against students working toward a second bachelor's degree. For those who do desire a second degree, the following applies: Students who hold a bachelor's degree from another institution may be admitted to degree candidacy at Ursinus as transfer students. The student must satisfy all degree requirements at Ursinus, including completion of a minimum of sixty-four (64) semester hours work at Ursinus. Students who hold a bachelor's degree from Ursinus will not be awarded a second degree of the same type (B.A., B.S., or B.B.A.). They may be admitted to candidacy in a second degree area. The student must satisfy all requirements and must complete at least thirty-two (32) additional semester hours beyond what was required for the first degree.

Honors

Dean's Honor List

All full-time students achieving an average of 3.50 for a semester are announced six weeks after the end of that semester as members of the Dean's Honor List. It is an Ursinus tradition to publish at the Ursinus Day Academic Convocation the names of those students who have been carried on the Dean's Honor List for the preceding two semesters.

Commencement

Two commencement honors are assigned: one, the Valedictory, to the person attaining the highest standing in the graduating class; the other, the Salutatory, to the person attaining the next highest standing.

Graduation With Distinction

Members of the graduating class who have shown great proficiency in their study at Ursinus College may be graduated with distinction if, in the opinion of the faculty, their credentials warrant such honors. These distinctions, Summa Cum Laude, a cumulative average of 3.85 or above, Magna Cum Laude, 3.67 but less than 3.85; and Cum Laude, 3.5 but less than 3.67, are given only for unusual excellence in all subjects pursued by the candidate. Graduation honors will be calculated at the end of the fall term. If as a result of work done in the spring semester a student should merit distinction or a higher distinction, such honors will be awarded *ex post facto*.

Departmental and Interdepartmental Honors

The goals of the Honors Program at Ursinus College are to encourage academic excellence, to promote original research and independent study, and to reward scholarly achievement. Students with high overall academic standing who have demonstrated an exceptional competence, the capacity for independent, original research and disciplined scholarship may be awarded departmental honors or distinguished honors in the department of their major or minor fields of concentration. Students may also be awarded interdepartmental honors or distinguished honors, in which case at least one department is the department of their major or minor fields of concentration. All these awards are made subject to the following regulations:

1. To be eligible for departmental honors or distinguished honors, students must have
 - (a) a 3.0 cumulative average and an average of 3.3 or higher in all courses taken in the department in which they seek honors, based on the work of six semesters, or
 - (b) a 3.3 cumulative average and an average of 3.5 or higher in the department in which they seek honors, based on the work of the last four semesters.

Students pursuing interdepartmental honors must have a 3.3 GPA or higher in each department. Students who have attended Ursinus less than four semesters must have the same grade averages as in (b), and must obtain approval of the Dean of the College. Exceptions may be made by the Academic Standards and Discipline Committee.

2. To be admitted to candidacy for departmental honors or distinguished honors, students must obtain written consent of a faculty member who will serve as the project adviser, have their candidacy certified by the chairperson of the department in which they wish to pursue honors, and have the research or individual project approved by the department. To be admitted to candidacy for interdepartmental honors or distinguished honors, students must obtain written consent of a faculty project adviser from each department, have their candidacy certified by the chairperson of one of these departments, and have the research or individual projects approved by both departments.
3. Students must complete the two-semester sequence Research/Independent Work 491 and 492. They usually register during the spring registration period of their junior year for this sequence. Candidates for distinguished honors must work on the project for longer than these two semesters by participating in a summer research project, by earning at least four credits in preparatory Independent Study courses during the junior year, or by completing other equivalent requirements approved by the department(s). A related research project or

internship approved by the department(s) also fulfills this requirement for distinguished honors. By the end of September of the senior year, a candidate for honors or distinguished honors submits a formal proposal including a bibliography and research plan to the department(s) for approval. Near the end of the 491 course, the candidate submits a written status report and makes an oral presentation to the department(s). At that time the department(s) decide whether the student may continue working for distinguished honors, honors or neither.

4. The Honors Project, completed in the research/independent work courses, must demonstrate disciplined, independent and original scholarship or creativity. Distinguished Honors Projects must exhibit exceptional creativity or scholarship. If the candidates receive a passing grade, they will earn credit hours toward graduation, even though their work may not be recommended for honors.
5. An honors committee of at least three faculty members, at least two from the department(s) and at least one from outside the department(s), evaluates the project and an oral presentation, and examines the candidate by early April. This committee is chosen by the department chair(s) in consultation with the adviser(s) and the student, and it submits a written evaluation to the department chairperson(s). Departmental or interdepartmental honors will be awarded on the recommendation of this committee and the department(s), and the approval of the faculty. When the honors committee recommends a candidate for distinguished honors, an outside evaluator assesses the paper and an oral presentation. The oral presentation is followed by an examination by the outside evaluator and the department(s). The outside evaluator is chosen by the department chair(s) after consultation with the adviser(s) and other department members. Departmental or interdepartmental distinguished honors will be awarded on the recommendation of the department(s) and the outside evaluator, and the approval of the faculty.
6. Departments specify the date for the candidate to submit a completed thesis. In order that the faculty may consider the awarding of honors or distinguished honors, the candidate must deposit the completed thesis in bound form following the format established by the Myrin Library, the written recommendation of the project adviser, and approval of the department(s) and of the outside evaluator for distinguished honors in the office of the dean of the College by the Monday of the last full week of classes.

A list of students who were awarded Departmental Honors in 2005-2006, and their project titles, appears in the Directory section of the catalogue.

Academic Honor Societies

Phi Beta Kappa: Phi Beta Kappa is a national academic honor society founded at the College of William and Mary in Williamsburg, Va., on Dec. 5, 1776. The stated purpose of Phi Beta Kappa is to "recognize and encourage scholarship, friendship, and cultural interests." The Ursinus College chapter, Tau of Pennsylvania, was approved on October 19, 1991. Composed of faculty members holding Phi Beta Kappa keys, the chapter confers membership on the basis of "high scholarship, liberal culture, and good character." Election to Phi Beta Kappa is considered the highest academic honor for undergraduate students.

Cub and Key Society: The Cub and Key Society was founded in 1939 at Ursinus College to recognize the male leaders of the campus who have distinguished themselves through high scholastic standing, participation in extracurricular activities, and service to the College community. Election to the society is limited to second-semester juniors.

Whitian Society: The Whitian Society was founded in 1939 at Ursinus College by Dr. Elizabeth B. White, professor of history and dean of women. The society recognizes the achievements of women who have distinguished themselves through outstanding academic performance, in addition to leadership and service to the College. Election to the society is limited to second-semester juniors.

Alpha Sigma Lambda: Alpha Sigma Lambda, the national honorary society for continuing higher education students, was founded in 1945 at Northwestern University. The Ursinus College chapter, Gamma Omicron, was installed April 8, 1983. Election to the society is based on academic achievement and is limited to sophomore, junior and senior continuing education students.

Honor Societies; Discipline-Based: These include: **Alpha Psi Omega**, national honorary dramatics fraternity; **Beta Beta Beta**, an honorary society for the biological sciences; **Kappa Mu Epsilon**, the national mathematics honor society; **Omicron Delta Epsilon**, the international honor society in economics; **Phi Epsilon Kappa**, the national honor society in exercise and sports science; **Pi Gamma Mu**, the International honor society for social sciences; **Pi Nu Epsilon**, the national honorary music fraternity; **Phi Alpha Theta**, the international history honor society; **Phi Sigma Iota**, the national foreign language honorary society; **Pi Sigma Alpha**, the national social science honor society; **Psi Chi**, the national honor society in psychology; **Sigma Pi Sigma**, the national physics honor society; **Sigma Tau Delta**, the national English honor society; **Sigma Xi**, the national honorary fraternity for the recognition and encouragement of scientific research; and **Theta Chi**, the Ursinus chapter of **Lambda Pi Eta**, the national communication honor society.

Academic Policies

Choice of Studies

At matriculation, students designate possible areas of academic interest. In the second semester, first-year students may declare a major field to study in depth. Students who have not decided on a major by the end of the second semester will retain their first-year advisers. In the fourth semester, students must designate a major field. The chairpersons of the students' major departments will assign their academic advisers. The approval of the adviser is necessary before a student may register for or enter any course of study, or discontinue any work.

Registration

First-year students register for the fall semester in consultation with their advisers on freshman orientation days held during the summer. Returning students register for the fall semester during the spring registration period listed in the back of the catalogue. Registration for the spring term is completed for all students during the fall registration period listed in the back of the catalogue.

URSINUS COLLEGE CATALOGUE

Students are registered according to the schedule for the registration period published by the Registrar's Office. Before that, students consult with their advisers to prepare schedules of courses for their college careers.

Students must remember that they alone are responsible for making sure they have completed College requirements and departmental requirements. When students change their majors, they must fulfill the requirements of the most recent major department in order to be graduated. Students may add or drop courses at any time during the first two weeks of classes. No course may be added after the second week of classes. Courses dropped after the second week of classes but before the midpoint of the course will be designated by a W on the student's record. Students who withdraw after the midpoint of a course will receive a grade of WF. Students who withdraw from a course without permission will receive a grade of F.

Class Attendance

In keeping with a strong liberal arts tradition that encourages active learning and complete participation in the education process, the college expects students to attend class. Specific attendance policies are set by individual instructors and indicated on the course syllabus at the beginning of each term. Academic warnings will be issued by instructors for all students failing to meet the stated course attendance policies. Excessive absences by first year students and students on academic probation will be reported to the Dean's Office. Students may be dropped from a course with a grade of F for failing to meet the stated policy.

Statement on Academic Honesty

Ursinus College is a small community which functions by a social contract among students, faculty, administration and alumni. In order for the spirit of community to endure and thrive, this agreement, based upon shared values and responsibilities and a sense of mutual respect, trust and cooperation, must be preserved. Students have an obligation to act ethically concerning academic matters and the faculty has a responsibility to require academic honesty from students and to be vigilant in order to discourage dishonesty.

Lying, cheating, stealing, plagiarism and other forms of academic dishonesty violate this spirit of mutual respect and collaboration and corrode the atmosphere of openness and free inquiry upon which the educational process is based. Such activities are demeaning and potentially damaging to those who undertake them. Moreover, academic dishonesty is damaging to the student body as a whole, in that it cheapens the achievement of the honest majority of students and subverts the integrity and reputation of the institution with which they will be identified for the rest of their lives.

Students should be aware that there are many legitimate sources of help available on campus. Academic departments often provide help sessions, and the library provides research assistance. There is also a Writing Center in Olin Hall and a Tutoring Center in Unity House. This help is provided for academic assistance and is designed to enhance the learning process rather than circumventing it, which occurs in cases of academic dishonesty.

The student body, the faculty, and the administration of Ursinus College therefore unanimously condemn academic dishonesty in all its forms and affirm that it is the responsibility of all members of the college community to prevent such activity.

Grades of Scholarship

When a course has been completed, the standing of the student is expressed by one of the following grades: A+, A, A-, B+, B, B-, C+, C, C-, D+, D, D-, F; or, if the course is a Satisfactory/Unsatisfactory (S/U) course, the student's standing is expressed by the grade S or the grade U.

Letter grades have the following equivalence assigned:

Grade	GPA	Numeric Grade
A+	4.00	98.33
A	4.00	95.00
A-	3.67	91.67
B+	3.33	88.33
B	3.00	85.00
B-	2.67	81.67
C+	2.33	78.33
C	2.00	75.00
C-	1.67	71.67
D+	1.33	68.33
D	1.00	65.00
D-	0.67	61.67
F	0.00	45.00

The mark of S signifies that a student has earned the course credits in an S/U course at the B (3.00) level or higher; this mark is not included in the computation of a student's average.

The mark of U in an S/U course is calculated into the student's average as F (0.0).

The mark of W signifies that a student withdrew from the course prior to the midpoint of a course, and is not calculated into a student's average. The mark of WF signifies that a student withdrew from the course after the midpoint of the course, and is calculated into the student's average as an F (0.00). The mark of I, which may be given only with the written permission of the dean, is reserved for cases of incomplete work, due to documented physical incapacitation or other extenuating circumstances beyond the student's control. A plan and schedule for completing the remaining work, agreeable to student and professor, must accompany the request for an I.

If the mark of I is not removed within one month after the end of the semester in which the I was given, the grade F will be assigned for the course.

Grade Appeal

Faculty must follow practices of fairness and objectivity when assigning student grades. Since it is assumed that the final grade is obtained after a careful evaluation of a student's entire academic performance in a class, the course syllabus must contain a clear statement of how a final grade is computed. Even though grading may be considered to be inherently subjective, it does not follow that grading is an arbitrary or capricious practice. Normally, no grade appeal will be accepted unless there is an error in computation or there is evidence of prejudice or caprice.

Grade Appeal Procedure

1. A student who wishes to appeal a final grade must contact the instructor and attempt to resolve the issue.
2. If, upon consultation with the instructor, there is no resolution, the student contacts the chair of the department in which the course is offered, or in the case where there is no chair, the

Dean of the College. The chair attempts to resolve the conflict by discussing the issue with the instructor involved. Every effort should be made to resolve the conflict at the departmental level.

3. If there is still no resolution, the student contacts the Office of the Dean of the College, and in writing, describes the nature of the complaint. The Dean discusses the matter with the chair and the instructor and makes a recommendation to the instructor.
4. If there is still no resolution, the Dean will bring the issue to the Academic Standards and Discipline Committee and/or appoint an ad hoc committee of three faculty to make a recommendation to the instructor. The committee will be composed of members acceptable to both the student and the faculty member.

Time Frame

Students must initiate the grade appeal no later than two weeks after the start of the next semester. The appeal process should take no longer than four weeks from the student's initial contact with the instructor to the final recommendation of the ad hoc committee.

Repeating Courses

Students may retake any course, but they shall receive credit only once for the same course. Although a course may be retaken as many times as necessary to receive a passing grade, students may repeat only once courses they passed on the initial try. All grades for courses taken at Ursinus will appear on the transcript, but the last grade earned will replace the previous grades for the purpose of calculating the GPA. Credits earned elsewhere and accepted as transfer credits will not alter the GPA or serve as a replacement grade.

Academic Probation

Any students who have a GPA below C (2.00) at the end of any semester or who have a semester GPA below 2.00 will be placed on academic probation by the Academic Standards and Discipline Committee or by the faculty. Students on academic probation may be restricted in their extracurricular activities. On-campus employment and Ursinus College financial aid may be restricted for a student whose average for the preceding academic year, including summer session, is below C (2.00).

Dismissal

Students will be dismissed from the College if at the end of their first semester their GPA is below 0.67; if at the end of their second semester their GPA is below 1.33; if at the end of their third semester their GPA is below 1.67; if at the end of their fourth semester or 64 semester hours (including transfer credits), or any subsequent semester, their GPA is below 2.00. Students will also be dismissed if they achieve a semester average below C (2.00) for more than two successive semesters, regardless of their cumulative average. Students who earn a semester average of zero will also be dismissed. Exceptions to the above policy must be approved by the faculty, or by the Academic Standards and Discipline Committee acting for the faculty. The action of the faculty, or the Academic Standards and Discipline Committee acting for the faculty, in all cases is final. Students who have been dismissed are not eligible to take courses in the Center for Continuous Learning at Ursinus College.

Any student may be dismissed from the College for academic violations such as cheating or

plagiarism, regardless of the student's academic average. Non-academic reasons for dismissal are outlined in the Student Handbook.

Readmission

Students who have been discontinued for academic reasons may apply for readmission. Unless there are unusual circumstances, applications for readmission will not be considered unless one academic year has passed before the readmission date. Readmission is not automatic. To be considered for readmission, students must demonstrate that they are able and prepared to return to the College for serious academic work. They should take courses at an accredited institution and obtain at least a B (3.00) average. They may work or engage in community service or other volunteer activities that will demonstrate a seriousness of purpose. Application for readmission is made to the Office of Admissions. Students' previous academic performance and social activities at Ursinus will be important factors in the readmission decision. The faculty or the Academic Standards and Discipline Committee must approve readmissions.

Withdrawal

Students who seek to withdraw from the College must notify the dean of the College in writing of this intention and its effective date, and must satisfy all obligations (including bills, the return of keys, equipment, and other College property). Failure to meet any such obligation will render the student liable to dishonorable dismissal.

Study Elsewhere

Students are not permitted to earn credit toward graduation from Ursinus College by study at another college unless they have been granted permission by their academic advisers and the Academic Standards and Discipline Committee. Required courses in the department of a student's major should be taken at Ursinus. Approval to take such courses elsewhere will be granted by the Academic Standards and Discipline Committee only with the approval of the chairperson of the major department and if special or mitigating circumstances exist. Credit, but not grades, for approved courses taken elsewhere will be transferred upon successful completion of the course with a grade of C (2.00) or better and upon receipt of an official transcript from the other college. It is recommended that students take these courses at a four-year institution. Students who plan to study abroad must be admitted into the study abroad program before they are eligible for transfer credit.

Summer Program

Ursinus students may engage in college-approved research, internships, or study-abroad programs, often supported with housing and a stipend by the College or outside organizations and foundations. During the summer session, students conduct research under the advisement of faculty mentors, meeting periodically to gather resources, discuss methods, data collection and analysis. Students also may participate in a college approved internship or study abroad program. Students wishing to take summer study at other colleges must obtain approval in advance from their adviser, from the chairperson of their department if they wish to take a course required for the major, and from the Office of the Registrar. In order for credits for such approved courses to be transferred to Ursinus, the student must obtain a grade of C (2.00) or better and arrange for the college where the courses were taken to send an official transcript to Ursinus. Students planning to take summer classes abroad must also consult with the study abroad coordinator.

Critical Languages Program

Highly motivated students interested in doing work in languages not currently offered in the regular curriculum are advised to investigate the opportunity for such study through the Department of Modern Languages or the Critical Languages Program. In the Critical Languages Program, initial emphasis is on the spoken language. As the student progresses, skill in reading and writing is also developed. The program requires 12 to 14 hours per week of self-instruction, using tape-recorded materials coordinated with the text, and a minimum of two hours per week of small group tutorial sessions with a native speaker of the language. At the end of each term, an outside specialist examines the student and evaluates the work covered during the semester. Each course carries three credits. Ursinus College is a member of the National Association of Self-Instructional Language Programs.

Highly motivated students who have successfully mastered another foreign language previously should contact *Dr. Colette Trout (Department of Modern Languages)*.

Off-Campus Study

Internships

An internship is a structured and supervised professional experience for which a student receives academic credit. The Career Services Office has information on a wide range of internship opportunities.

Guidelines

Credit for a departmental internship will be established within the department and may be either three or four credits. The faculty internship adviser will determine whether an internship opportunity meets the standards to qualify for academic credit. Approval for academic credit for internship experiences will not be granted for internships in progress or following their completion. Students register for a summer internship during the spring registration period. On-campus internships must be approved by the Academic Standards and Discipline Committee.

Qualifications

Students who meet the following qualifications will be permitted to enroll in an internship:

- a) junior or senior status, and have completed three courses within the department that administers the internship, or permission of the faculty internship adviser;
- b) must have an overall GPA of 2.0;
- c) students will be permitted to undertake two internships, provided they are not concurrent, under any of the following conditions:
 - 1) the internship site requires a two-term commitment
 - 2) the student is a double major and wishes an internship in each major
 - 3) the second internship is outside their major (e.g. in their minor)
 - 4) the two internships are within the same major but are so different as to constitute a markedly different experience
- d) exceptions to these qualifications must be approved by the Academic Standards and Discipline Committee.

Defined Activities

The internships will include the following specified activities:

- a) specified number of hours at the internship site; the minimum hourly requirement will be 10-12 hours per week with a minimum of 160 hours per semester – four credits; 120 hours per semester – three credits
- b) submission of the internship registration form (internship learning agreement)
- c) a journal or daily log recording activities and hours
- d) meetings with the faculty internship adviser
- e) a final research paper or other visible product such as a portfolio, video
- f) whenever possible, a public oral presentation of results

Grading

Since the faculty internship adviser is responsible for the final grade, the internship will be graded on the basis of:

- a) final visible product as defined by internship-granting department
- b) input from on-site adviser
- c) input from faculty internship advisers

Pre-Engineering Program

Arrangements have been made with the engineering schools of Columbia University and Washington University (St. Louis), to which a student may apply for transfer after completing three years of prescribed work toward a B.A. at Ursinus College. Ursinus College will grant the B.A. after a student has satisfied the requirements for that degree, usually on satisfactory completion of the fourth year. The engineering school will grant the engineering degree on satisfactory completion of the fifth year. Transfer to other engineering schools (without formal affiliation) is also possible. Candidates for the pre-engineering program must present four years of entrance credit in mathematics.

National Programs

Washington Semester

Ursinus is one of more than 200 institutions participating in the Washington Semester Program, a cooperative arrangement conducted by American University in Washington, D.C. The program offers several specializations, including the American Politics Semester, the Economic Policy Semester, the Justice Semester, the Foreign Policy Semester, the Journalism Semester, and the Art and Architecture Semester. These programs give selected juniors and seniors an opportunity to work with people and resources in the nation's capital so as to understand better the dynamics of American politics and policymaking.

Under the direction of full-time faculty from American University, students participate in seminars with governmental officials, lobbyists, and media representatives; they arrange an internship with

one of the three branches of the national government, political parties, interest groups, research organizations, or the media; and they may complete a major research project on a current issue or policy problem. Candidates for selection should have a firm grounding in the area they wish to study. Interested students should contact *Dr. Gerard Fitzpatrick (Department of Politics)*.

Howard Semester Program

This program allows Ursinus students to attend Howard University in Washington, D.C., under an exchange agreement between the two institutions. Students wishing to participate will normally do so for one semester in their junior year. Students will pay Howard's tuition and fees. Interested students should contact *Paulette Patton (Multicultural Services Office)*.

International Programs

The immediate knowledge of the cultural heritage of another country, with its contemporary economic and social problems, affords students an awareness of differing values and an understanding of our own country's relation to issues which confront the world today. Ursinus College students may spend a semester, a year, or a summer in an approved study abroad program, provided they are students in good standing, are recommended by their major adviser, and, in the opinion of the dean and the faculty, will be worthy representatives of the College and will profit from this experience. Rising sophomores may apply to study abroad as early as the summer following their freshman year. Juniors are especially encouraged to study abroad, and seniors may apply to study abroad in the fall semester of their last year. All students, regardless of major, are encouraged to study abroad, but they normally should have completed courses through at least the intermediate level in the language of the country involved. The course of study must be approved at the time that permission is given. Upon evidence of successful completion of the program, a maximum of 16 credits per semester will be given for studies pursued abroad. Information may be obtained from the study abroad coordinator or faculty advisers responsible for specific programs.

Ursinus College Semester Abroad Programs

These semester abroad programs are directed by Ursinus College faculty and feature family homestays and internships where available. Each program has its own pre-departure orientation or preparatory course. Students who participate in these programs remain officially enrolled at the college; receive Ursinus College credit, and their grades factor into their overall GPA. By the end of the program, all students who successfully complete their UC semester abroad will fulfill the ILE requirement. Please note that Ursinus College Semester Abroad programs are preferred over other semester programs in similar destinations with similar course offerings.

Ursinus in Florence, Italy (spring)

This semester program in Tuscany includes the study of Italian language and culture, as well as offerings taught in English by Ursinus faculty in other areas of study. All students are required to take a course in Italian language. Visits to museums and archaeological sites are included in the program. Students live with homestay families. 16 credit hours.

Adviser: Dr. Melissa Hardin (Study Abroad Coordinator)

Ursinus in Madrid, Spain (fall)

This full immersion language program, hosted by the International House (IH) in Madrid, targets students

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of various levels who have completed a minimum of two semesters of college Spanish at the intermediate level or higher. Recognized by the prestigious Instituto Cervantes, IH follows the Council of Europe Common European Framework Reference in its placement system and curriculum. The Ursinus faculty director teaches one or more courses on Spanish art, civilization, literature, politics, or society. Students also formally apply to participate in a Community Practicum that places them in local firms, non-governmental organizations, or community schools. All students live with families. 16 credit hours.

Adviser: Dr. Melissa Hardin (Study Abroad Coordinator)

Ursinus in Paris, France (TBD)

Course offerings for the Paris semester include French culture and history, and may include a course that will satisfy a CORE curriculum requirement such as social science. All students will take French language classes with specially trained native speakers. No previous knowledge of French is required. All participants will be placed with carefully selected French families to learn more about the language and culture. 16 credit hours.

Adviser: Dr. Melissa Hardin (Study Abroad Coordinator)

Ursinus in Tübingen, Germany (fall)

The semester program is located in the beautiful medieval university town of Tübingen in southwestern Germany. The host institution, Sprachinstitut, follows the Council of Europe Common European Framework Reference in its language placement system and curriculum. No previous knowledge of German is required but all students register for an intensive German language course. Students of all majors have the opportunity to study European history, politics, and German and comparative literature. Courses are taught in English and in German. Independent research projects and internships, including science internships in university and private laboratories and teaching internships in German public schools, are available to qualified students. The program includes visits to regional museums and historic sites. Students live with families. 16 credit hours.

Adviser: Dr. Robin Clouser (Modern Languages)

Ursinus in Yucatán, Mexico (spring)

This field-work intensive experience takes students to various sites of biological and archaeological interest for classroom study, field work and research. It offers three courses taught in English including Evolution, the Biology of Maya México and the Maya: Ancient and Modern. In addition, all students take a short-term intensive Spanish language course during which they live with homestay families. Otherwise students live in accommodations provided by research stations. 16 credit hours.

Advisers: Dr. Ellen Dawley (Biology) and Dr. Robert Dawley (Biology)

Ursinus College Summer and Winter Programs

Ursinus College offers several programs during the winter interim or during the summer. All programs are conducted by Ursinus College faculty. Programs that fulfill the Independent Learning Experience (ILE) are indicated by *.

Summer Programs

The summer program in Japan*, which runs from late May to late June, is offered in collaboration with Tohoku Gakuin University in Sendai, Japan. Students live with families while studying at the university and have an opportunity to visit Hiroshima and Tokyo.

Adviser: Dr. Matthew Mizenko (Modern Languages)

The four-week language-intensive summer program in Mexico* includes a homestay in Cuernavaca and travel to Puebla, Mexico City, and other areas of interest, such as the Yucatan Peninsula, Oaxaca, or the west coast of Mexico. Students participate in language classes taught by local faculty and take a seminar with the Ursinus faculty director.

Adviser: Dr. Douglas M. Cameron (Modern Languages)

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The Summer Program in Germany * is held in Tübingen in southwestern Germany. Students of all majors and language levels study intensive language, live in student residences and have the opportunity to enroll in a practicum or internship. The six-week program begins at the end of May and ends in early July.

Adviser: Dr. Robin Clouser (Modern Languages)

Winter Interim Programs

Biology of the Neotropics* is a field study of the rain forests of Costa Rica. Qualified students meet for 15 hours on campus and spend three weeks in the field. Side trips include visits to cloud forests or coral reefs. The program is offered every other year.

Advisers: Drs. Robert and Ellen Dawley (Biology)

Winter study in Senegal (TBD) is a two-week French language course, including classroom study, homestay with a Senegalese family, excursions and weekend travel. Offered during winter break.

Adviser: Dr. Frances Novack (Modern Languages)

Exchange Programs

These semester or academic year programs are based on student exchange agreements or sister school status with other institutions. Students who participate in these programs are officially enrolled at the host institution. Except in the case of Tohoku Gakuin University, grades do not transfer; credits do.

Japan: Ursinus-Tohoku Gakuin University Program

Ursinus College has enjoyed a long-standing tradition of exchange programs with Tohoku Gakuin, its sister university in Sendai, Japan. The student exchange program, which began in the fall of 1991, provides Ursinus students with the opportunity to spend the fall semester at Tohoku Gakuin at no additional cost except transportation. Classes are conducted in English except for Japanese language classes. The program is open to majors in any subject, and students earn 16 credits. Admission is competitive and students must have completed some Japanese language courses.

Advisers: Dr. Matt Mizenko (Modern Languages) and Dr. Hugh Clark (History)

Mexico: Ursinus-Universidad de las Américas-Puebla Program

This program is a one-for-one student exchange program with the Universidad de las Américas-Puebla in Cholula, Mexico. Students may spend the fall or spring semester or a complete academic year at UDLA at no additional costs except transportation and spending money. If their level of proficiency in Spanish is adequate and they have the required prerequisites, Ursinus students at UDLA may enroll in courses in all fields with Mexican students. If not, they must enroll in special courses for foreigners in Spanish, in Mexican history and culture, and in Latin American literature. This program is open to majors in any field. Students may transfer up to 16 credits per semester.

Adviser: Dr. Douglas Cameron (Modern Languages)

Sénégal: Ursinus-Université de Saint-Louis Program

Students may spend the fall semester or an entire academic year in Senegal through a direct exchange program between Ursinus College and the Université de Saint-Louis. All students are enrolled in an intensive four-week orientation program and take courses at the University. Students participate in tutorials, language exchange partnerships and cultural activities. Housing is provided by the university. Requirements: Two years of college-level French.

Adviser: Dr. Frances Novack (Modern Languages)

Special Relationships

Qualifying Ursinus College students may be admitted into the following programs through formal affiliations between the sponsoring institutions and Ursinus College. Students who participate in these programs are visiting students abroad. Grades do not transfer; up to 16 credits per semester do.

Costa Rica: Organization for Tropical Studies (OTS)

Ursinus has an affiliation with OTS in Costa Rica which offers an integrated semester program in

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environmental science, field research in tropical biology, Spanish language and Latin American culture. OTS field stations are prime research sites and facilities used by scientists from all over the world. Students transfer 16 credits.

Advisers: Drs. Robert and Ellen Dawley (Biology) and Dr. Douglas Cameron (Modern Languages)

Council for International Education Exchange (CIEE)

Ursinus College is affiliated with several consortia of colleges and universities which have been created to offer high-quality international experiences to our students throughout the world. Through our relationship with CIEE, Ursinus students may participate in selected programs in Africa, Asia, Europe and Latin America. These programs are either broad-based and conducted in English or discipline-based and conducted in the target language. They are open to students from all majors.

Adviser: Dr. Melissa Hardin (Study Abroad Coordinator)

England: CAPA International Education London Program (CLP)

This semester program includes courses in British literature, theatre and media, European history and politics, psychology, art history, business, finance and marketing, as well as internships in local businesses and organizations. Theater performances and visits to local sites may be included in the program. Students live with homestay families. 12-15 credit hours.

Adviser: Dr. Melissa Hardin (Study Abroad Coordinator)

Institute for Study Abroad (IFSA)-Butler University: Australia, England, Ireland, Scotland and New Zealand

Ursinus College sponsors selected semester and year-long educational programs in Australia, England, Ireland, Scotland and New Zealand. All programs are administered by IFSA-Butler University in conjunction with overseas universities. Admission requirements for universities vary. Internships are available at some sites. All students participate in the orientation programs, family or farm visits and special excursions. Students live in university housing. For a list of pre-approved Butler IFSA programs, contact Dr. Melissa Hardin (Study Abroad Coordinator).

Adviser: Dr. S. Ross Doughty (History)

Sea Education Association (SEA) Semester

The Sea Education Association (SEA), founded in 1971, is located on a campus in Woods Hole, Mass. SEA operates year-round and its sailing vessels SSV Westward (125-foot schooner) and SSV Corwith Cramer (134-foot brigantine) routinely sail the waters of the north Atlantic Ocean and the Caribbean Sea—from Newfoundland to Venezuela. The SEA Semester (12 weeks) consists of six weeks spent in Woods Hole (oceanography, maritime studies, nautical science) followed by six weeks at sea (oceanographic research). After successfully completing SEA Semester, an Ursinus student earns 16 semester hours of academic credit. Ursinus College is a formal affiliate of SEA and students receive credit directly from Ursinus. An important component of this interdisciplinary program is the development of self-discipline, curiosity, persistence and collaborative investigation. The W. W. Smith Charitable Trusts accepts applications for financial assistance in the SEA program.

Interested students should contact Dr. James Sidie (Biology)

Independent Programs

Qualifying Ursinus College students may be approved to participate in the independent programs listed below. Students who participate in these programs are visiting students abroad. Grades do not transfer; up to 16 credits per semester do.

France: American University Center in Provence (AUCP)

Students in good standing may study at the American University Center in Provence, in Aix-en-Provence, France for a semester or an entire academic year. Students normally should have proficiency in French sufficient to study at the 200 level. A special aspect of the program is the French Practicum course, which requires students to integrate themselves with French life by undertaking practical activities which place them in direct, natural contact with the local population. In addition to AUCP classes, students will have the opportunity to

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study in the French Université de Provence and will live with French families. The program is open to majors in any subject. Students may transfer up to 16 credits a term.

Adviser: Dr. Frances Novack (Modern Languages)

France: Strasbourg (BCA)

Ursinus students may opt to study in Strasbourg, France with Brethren Colleges Abroad (BCA). Students must have sufficient background in French to take courses at the 200 level. This program is of particular interest to students wishing to study the European community and its political and economic implications.

Adviser: Dr. Colette Trout (Modern Languages)

Germany: Heidelberg University (AJYA)

The University of Heidelberg, in affiliation with Heidelberg College of Tiffin, Ohio, serves as the site for Ursinus College students for the entire year, the spring or the shortened fall semester. Requirements: at least two years of college-level language study. All students take an intensive four-week preliminary course. Depending on the results of the mandatory German Language Proficiency Examination, students are placed in courses at the International Study Center, the Institute for German as a Foreign Language, the Junior Year Student Center or in other departments of the University. All students participate in weekly tutorials, community activities and language exchange partnerships. Internships are available to qualified students. Students are housed with German students in university or private residence halls.

Adviser: Dr. Robin Clouser (Modern Languages)

Spain: Instituto Universitario de Sevilla (IUS)

The Instituto Universitario de Sevilla, Spain offers courses in Spanish for American students. Students who have enough proficiency may opt to take special cursos concertados at the University of Seville in addition to the courses normally offered at the Instituto. All students live with local families.

Adviser: Dr. Melissa Hardin (Study Abroad Coordinator)

Additional International Opportunities

Leadership Studies in an International Context

Outstanding students in the Ursinus Leadership Studies Program may apply to participate in a service and study experience in another country. Service projects and academic credit are arranged in advance with the Leadership Studies Office and appropriate academic departments. Past service experiences have ranged in length from 3-8 weeks and have included teaching English and farm work in Cuba, Korea, and Madagascar. Academic credit may range from 2 to 4 credits in foreign language and politics and international relations. Academic credit in other disciplines is possible.

Adviser: Dr. Houghton Kane (Politics)

St. Andrew's Society of Philadelphia Scholarship

Over the past 30 years, 21 Ursinus students have received scholarships from The St. Andrew's Society of Philadelphia to spend their junior year in Scotland. This organization awards five \$12,000 scholarships to college sophomores in the greater Philadelphia area. These awards cover tuition and most of the expenses incurred at The Universities of Aberdeen, Edinburgh, Glasgow, and St. Andrews. The competition is open to all sophomores who are strong academically, and who are involved in extracurricular activities and organizations. A faculty committee will interview applicants and the Scholarship Committee of the St. Andrew's Society will then interview the winning candidate in Philadelphia in April, together with candidates from other colleges and universities. Students who win this award are officially enrolled at the host institution. Grades do not transfer; credits do. Application deadline: Mid-February.

Advisers: Dr. Ross Dougherty (History) and Dr. Greg Weight (Coordinator of Student Fellowships and Scholarships)

Special International Internships

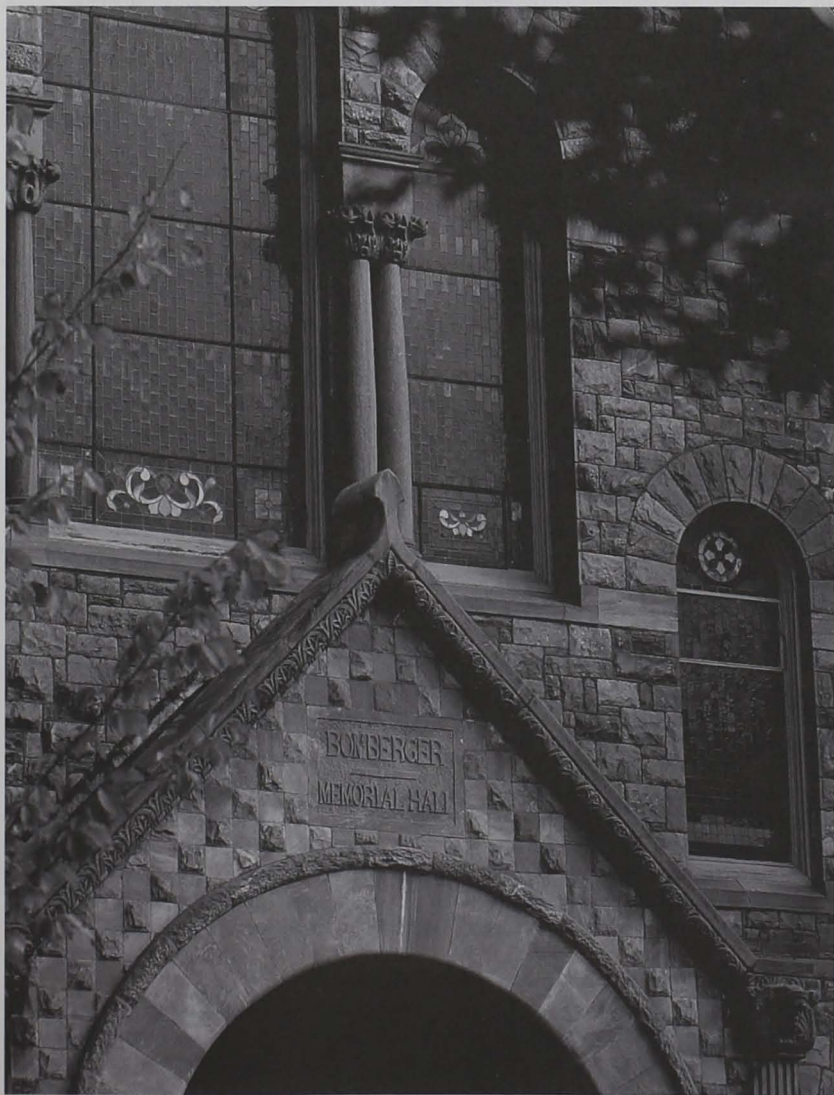
Qualifying students may be placed in domestic internships within an international context or in special internships abroad arranged by The Hon. Joseph Melrose, Ambassador-in-Residence. Past placements have been made in U.S. State Department as well as Non-governmental Organization sites abroad.

Adviser: The Hon. Joseph Melrose (International Relations)

Washington University in St. Louis Summer Study in France for the Pre-Med Student

This intensive summer program is designed for students interested in French language, cultural studies as well as pre-medical studies. The program aims at total immersion in French language and culture, while providing students with the opportunity to experience first-hand the French medical system. France for the Pre-Med Student can accommodate students in a broad spectrum of health-related fields and special interests. Program dates: mid-May to late June. Prerequisite: four semesters of college-level French. Credits: seven semester hours. Application deadline: Rolling admissions, February 1.

Adviser: Dr. Colette Trout (Modern Languages)



Courses of Instruction

The system used in numbering courses reflects in general the year of College in which many students schedule a course. Thus a course taken normally in the first year will begin with the number 1, in the second year with a 2, and so on. Numbers do not indicate the year in which a course must or should be taken. Any specific prerequisite or other considerations for enrolling are stated in the course description. Courses whose numbers are followed by a "W" are writing-intensive courses. Courses whose numbers are followed by "Q" are those which involve quantitative analysis. The credit value of each course is expressed in semester hours. The semester hours are given in italics in the definition of the course. Core requirement designations at the end of many course listings show which requirements they fulfill ("A" for Arts, "CIE" for Common Intellectual Experience, "D" for Diversity, "G" for Global, "H" for Humanities, "I" for Independent Learning Experience, "L" for language, "LS" for laboratory science, "M" for Mathematics, and "SS" for Social Science.)

African American and Africana Studies

Professors Novack, Oboler, Schroeder; Associate Professors Edwards, Shuru; Assistant Professors DaCosta, Greason (Coordinator), Jaroff, Keita, Nixon, Rice.

The African American and Africana Studies program provides an opportunity to study the experiences of people of African descent in the African Diaspora (including Latin America), the United States, and Africa. This program explores the human, cultural, social, political, and historical factors that have affected the experiences of African American and Africana people.

Requirements for Minors

A minor concentration in African American and Africana Studies consists of 20 credits including a 3-credit introductory course and a 1-credit readings course. The courses in the minor deal with aspects of the African American and African Diasporic experiences as they have been framed by the peoples concerned and represented by others. AAAS minors must take AAAS-200 and AAAS-299. Additionally, students must take at least four courses from the following electives, with no more than 2 courses from a single department: ANTH-242, BE-110, ENGL-222, FREN-203, HIST-222, HIST-223, HIST-323, HIST-329, HIST-331, HIST-362, PHIL 140, PHIL 240, POL-316, POL-399L, RELS 225, SOC-255, SOC-258, or SOC/GWMS-264. AMST-200 and/or SPAN-440W may also fulfill this elective requirement when the topic is appropriate and with prior approval from the AAAS coordinator.

AAAS-200. Issues in African American and Africana Studies *Faculty*

This is an interdisciplinary, introductory course for the African American and Africana studies program. This discussion-oriented course is designed to integrate the diverse concentrations of the discipline. It will cover the history of the field, and the role and contributions of various disciplines. This course also examines the variables and dimensions of African-American and African Diasporic experiences. Fall semester only. Three hours per week. *Three semester hours.*

AAAS-299. Readings in African American and Africana Studies *Faculty*

This is a directed reading course in which the student chooses its focus and concentration. The student, in conjunction with an AAAS faculty member, will develop a bibliography and a schedule for the readings. Students are required to complete a research paper for this course. Prerequisite: Permission of the AAAS Coordinator. *One semester hour.*

American Studies

Professors Fitzpatrick, Gallagher, Hemphill, Kane, Miller, Oboler, Schroeder (*Coordinator*), Stern;
Associate Professor Edwards, Marks; *Assistant Professors* Garcia, Greason, Skulnick, Woodstock.

Knowledge of our own culture, its history, literature, and politics, is indispensable to responsible American citizenship. Furthermore, a deeper understanding of American culture enables us to appreciate the ways in which our own culture affects our perception of other cultures. The American Studies program provides an interdisciplinary approach to the study of American life through which students can fully appreciate both its unity and diversity. The American Studies major and minor are useful for students interested in graduate study in American Studies and all the participating disciplines, as well as professional study in areas such as law, social work and journalism. It is also an appropriate major for those seeking certification to teach social studies. The American Studies major is interdisciplinary. All majors must take AMST 200, a course that demonstrates the possibilities of an interdisciplinary approach to the study of American society. Interdisciplinary study works best, however, when the student is well grounded in at least one specific discipline to serve as a point of departure. American Studies majors accordingly choose a disciplinary concentration by taking an introductory or methods course, a capstone course, and two American Studies-related electives from one of the core disciplines of the program (English, History, Media and Communication Studies, Politics, and Sociology), as well as electives from American Studies disciplines beyond the concentration. The American Studies major can easily accommodate a dual major, should a student wish to pursue mastery of more than one discipline, but no more than two courses can count for both majors. The major can be completed with 36 credits.

Special topics courses relevant to American Studies may be included in the major or the minor with the prior approval of the Coordinator.

Requirements for Majors

Required course for all majors: AMST 200 – Issues in American Studies

Disciplinary concentration: Students will elect four courses, including a methods class, a capstone, and 2 electives, in one of the American Studies disciplines:

English concentration: English 290, 293 an American literature seminar or independent research course, and an elective from English 222, or advanced colloquia in American literature.

History concentration: History 200W, History 421W or 400, and two electives from 213, 214, 220, 321, 322, 323, 327, 328, 329.

Media and Communication Studies concentration: MCS 205, 200W, 460W or 462W or 464W, and one elective from 282, 285, 360 or 366.

Politics concentration: Politics 218, Politics 418, and two electives from 310, 315, 316, 321, 322, 323, 324, 325, 328, 330, 355.

Sociology concentration: Sociology 100, ANTH/SOC 460 and two electives from Sociology 227, 245, 247, 255, 258, 263, 264, 275.

Four electives from at least three different departments outside the student's disciplinary concentration. Students may choose any of the above listed courses (except English 290, History 200W, Politics 100, and Sociology 100); Art-290; Dance 100, 350A; Music 207; Religious

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Studies 221, 225. Students cannot count more than four courses in any one discipline towards the American Studies major.

Students are strongly encouraged to take more than one version (separate topics) of AMST 200. Students are also encouraged to consider a semester of off-campus study in a national program such as the Washington Semester or the Howard Semester program. The American Studies major is sufficiently flexible to accommodate study abroad.

Students may elect to fulfill some of the above requirements by doing an internship or research courses (including honors) in American Studies.

Students who are working on a double major must choose a disciplinary concentration in American Studies that is different from their other major.

Requirements for Minors

A minor concentration in American Studies consists of six courses dealing with aspects of American life.

Four of the following courses, from different disciplines: English 293, History 213 or 214, Media and Communication Studies 205, Politics 218, Sociology 255.

Two of the following: any course listed above; American Studies 200; English 222, 223 and Advanced Colloquia or seminars in American literature (prior approval of American Studies Coordinator required); History 213, 214, 220, 321, 322, 323, 327, 328, 329, 421W; MCS 282, 285, 360, 366; Politics 310, 315, 316, 321, 322, 323, 324, 325, 328, 330, 355, 418W; Religious Studies 221, 225; Sociology 227, 245, 247, 258, 263, 264, 275; Art 290; Dance 100, 350A; Music 207.

AMST-200. Issues in American Studies *Faculty*

This course will introduce students to American Studies by engaging them in an interdisciplinary examination of a broad theme or question about American society and culture. Topics will vary with the instructor(s), but will always be broad and issues and readings will be drawn from different disciplines. An example might be an interdisciplinary examination of the history of Philadelphia as a microcosm of the American experience, or an interdisciplinary examination of race and ethnicity in American society. Three hours per week. *Four semester hours. (D)*

AMST-381. Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Discuss details with the American Studies Coordinator. Prerequisites: 12 credits in the major and permission of the internship adviser. *Three or four semester hours. (I)*

AMST-391. Independent Study *Faculty*

Independent study under the supervision of an American Studies Department adviser. Topic and readings will be decided by the student and the adviser. Substantial reading and writing is required. Prerequisites: 12 credits in the major; and permission of the department adviser. *Four semester hours. (I)*

AMST-400W. Independent Research *Faculty*

Independent Research, under the guidance of an American Studies Department adviser, directed toward the production and oral presentation of a research project or paper. Prerequisite: 12 credits in the major and permission of the faculty adviser. *Four semester hours.*

AMST-491W. Research/Independent Work *Faculty*

This course is open to candidates for honors upon consultation with the American Studies Coordinator and with permission of an American Studies faculty adviser. *Four semester hours. (1.)*

AMST-492W. Research/Independent Work *Faculty*

A continuation of AMST-491W. Prerequisite: AMST-491W. *Four semester hours. (1.)*

Anthropology and Sociology

Professors Gallagher (Chair), Oboler, Visiting Instructor Bowles.

Anthropology and Sociology are related disciplines. Both are interested in the social life of groups. Many of the differences that exist between these two disciplines are the result of the original focus of anthropology on non-Western, generally small societies and the Western European origins of sociology, with its founders' focus on the social promise and pathologies of industrialization. Anthropologists who concentrate on small, non-Western societies primarily rely on participant observation as a research tool, while sociologists have employed a mix of quantitative and qualitative methods suitable for the study of modern, large-scale societies.

Today there are scholars in both disciplines using a wide variety of research tools resulting in an overlapping of the methods of these two disciplines. Because of the intrinsic relationship between anthropology and sociology, many of our courses integrate these two disciplines.

We believe that our integration of the disciplines will permit students to better understand human behavior, because they will see the variety of solutions that different societies have developed to resolve human problems, rather than simply analyzing our own society.

The Department of Anthropology and Sociology is deeply committed to the liberal arts and encourages students to take a wide variety of courses in many different disciplines. There are many opportunities for our students. One direction is toward graduate programs in anthropology and sociology, social work, law, public administration, criminology, regional planning, and a variety of other professional degrees in related applied disciplines. Another option is secondary education certification in social studies.

Requirements for Majors

All students majoring in anthropology and sociology must take Anthropology 100 or Sociology 100 or Sociology 110; ANSO-150W. Writing in Anthropology and Sociology; Anthropology/Sociology-200 (Methods); Anthropology/Sociology-400 (History and Theories); Anthropology/Sociology-460W (Seminar); four additional courses at the 200 level or above; and choose an emphasis in either anthropology or sociology. In addition, all majors are required to take Mathematics-241Q (Statistics I). Those interested in teaching certification in Social Studies should consult with the Education Department.

I. Anthropology Emphasis

Students choosing the anthropology emphasis must take a minimum of 36 semester hours in anthropology and sociology, including either eight credits of ethnography (chosen from Anthropology 222, 232, 242 and Sociology 255), or four credits of ethnography and Anthropology 205, Introduction to Archeology, or Anthropology 390, research, with a focus

on physical anthropology and prehistoric archaeology. English 214, linguistics and modern grammar, may be taken by students with an anthropology emphasis as credit toward the major. In addition, it is recommended that anthropology majors fulfill their science requirement in biology, and choose one of the Area Studies minors offered at Ursinus. (East Asian Studies or Latin American Studies).

II. Sociology Emphasis

Students choosing the sociology emphasis must take a minimum of 36 semester hours in anthropology and sociology. Psychology 440, Social Psychology, may be taken by students with a sociology emphasis as credit towards the major. In addition, four credit hours in psychology are encouraged. It is highly recommended that students choosing the sociology emphasis should take courses in other disciplines which will provide a broad insight into the human condition, whether these courses are in the humanities, sciences, or other social sciences. Students are encouraged to use this knowledge in their departmental courses.

Requirements for Minors

The Department of Anthropology and Sociology offers minors in both anthropology and sociology. All students minor in the Department must choose to complete the minor either in anthropology or in sociology.

I. Anthropology Minor

A minor in anthropology requires that students take a minimum of 20 semester hours in anthropology. These courses must include Anthropology 100 (Sociology 100 or Sociology 110 may be substituted) and at least four credits of ethnography (Anthropology 222, 232, 242 or Sociology 255). [Note: With the possible exception of Sociology 100 or Sociology 110, courses for the minor should be selected either from the list of anthropology courses or the list of integrated anthropology/sociology courses. Only with special permission may they include courses from the list of sociology courses.]

II. Sociology Minor

A minor in sociology requires that students take a minimum of 20 semester hours in sociology. These courses must include Sociology 100 or Sociology 110 (Anthropology 100 may be substituted) and at least two of the last three courses must be taken at the 200 level or above. [Note: With the possible exception of Anthropology 100, courses for the minor should be selected either from the list of sociology courses or the list of integrated anthropology/sociology courses. Only with special permission may they include courses from the list of anthropology courses.]

ANSO-150W. Writing in Anthropology and Sociology *Dr. Oboler*

An introduction to expository writing in anthropology and sociology following the standards in both disciplines. Students will incorporate modern theory and methods in frequent short papers in order to learn strategies to help them with every stage of the writing process, from generating ideas to shaping arguments to revising drafts, to using the appropriate style format. Three hours per week. *Four semester hours.*

ANSO-200. Methods in Anthropology and Sociology *Faculty*

An introduction to data collection, analysis and interpretation in anthropology and sociology. Students will be exposed to a wide variety of data collection techniques including participant observation, interviews, questionnaires, existing source studies, and the like. Students will also learn how to analyze and interpret the data with the aid of statistics. Ultimately, they will examine the relationship between research and theory. Prerequisites: Any 100-level Anthropology or Sociology course, Mathematics 241Q as a pre- or co-requisite, or permission of the instructor. Three hours of lecture and discussion plus two hours of lab per week. *Four semester hours.*

ANSO-381. Anthropology and Sociology Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact any member of the Department for further information. Prerequisites: A major in anthropology and sociology, junior standing, at least 12 credits in anthropology/sociology, and approval of the Department internship adviser. A minimum of 160 hours. Graded S/U. *Four semester hours. (I.)*

ANSO-382. Anthropology and Sociology Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact any member of the Department for further information. Prerequisites: A major in anthropology and sociology, at least 12 credits in anthropology/sociology, and approval of the Department internship adviser. 120 hours per semester. Graded S/U. *Three semester hours. (I.)*

ANSO-400. History and Theories of Anthropology and Sociology *Dr. Gallagher*

A study of anthropology and sociology within the framework of Western thought. An analysis of the development of anthropological and sociological theory from the 19th century until today. Prerequisites: Any 100-level course in Anthropology or Sociology, and Anthropology/Sociology-150W (Writing in Anthropology and Sociology). When possible, students should also have completed Anthropology/ Sociology-200 (Methods). Three hours per week. *Four semester hours. (SS.)*

ANSO-460W. Seminar in Anthropology and Sociology *Faculty*

Seminar is the capstone course in the Department of Anthropology and Sociology. As such, it will require that students choose a significant problem that is faced by our society, and using data from anthropology and sociology, as well as information from related disciplines, take an in-depth look at some significant issue. Students will also be required to report their findings in a major paper, and to report their results orally to the other members of the seminar. The topic of the seminar will change each time. Prerequisites: Any 100-level course in Anthropology or Sociology, ANSO-150W (Writing in Anthropology and Sociology), and either ANSO-200 (Methods), or ANSO 400W (History and Theory), or both. Three hours per week. *Four semester hours. (SS.)*

Anthropology

Anthropology is by definition and scope an interdisciplinary subject which addresses itself holistically to the study of people from many places and many periods of time. Anthropology encompasses four distinct but interconnected subfields of study: physical or biological anthropology, social and cultural anthropology, prehistoric archaeology, and linguistic anthropology. The goal of the Department is to help the student to understand what it means to be human and to appreciate our own value system more fully through an exposure to the systems of others.

ANTH-100. Introduction to Sociocultural Anthropology *Faculty*

Sociocultural anthropology is one of four subfields in anthropology. This course will emphasize sociocultural anthropology but will also briefly look at the other subfields: physical, prehistoric archaeology, and linguistics. Our main focus will be placed on family patterns, kinship relationships, political organization, economic systems, religion, the arts, and social change. Prerequisites: None. Four hours per week. *Four semester hours. (SS, G.)*

ANTH-205. Introduction to Archaeology *Staff*

Archaeology is the subdiscipline of anthropology that seeks to understand cultures of the past on the basis of their material remains. This course provides basic instruction in methods and theory in archaeology, followed by a survey of world prehistory that focuses on the development of societal complexity, as interpreted through archaeological data. Three hours per week. *Four semester hours. (SS.)*

ANTH-222. Drugs for Mind and Body *Dr. Gallagher*

An analysis of the uses of both medicinal and mind altering drugs with emphasis on the original inhabitants

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of the Americas and a comparative look at their uses in the United States today. While the primary focus of this course is on the utilization of drugs, we can only understand the use within the context of the societies as a whole; therefore, we will also read several ethnographic accounts of Native American societies in which these drugs were used. Prerequisite: any 100-level course in Anthropology or Sociology or permission of the instructor. Three hours per week. *Four semester hours.* (SS, G.)

ANTH/GWMS-225. Gender and Kinship Cross-Culturally *Dr. Gallagher, Dr. Oboler*

The structure of sex and gender roles has important implications for marriage, the family, and kinship in all societies. This course examines sex and gender roles, sexuality, mate selection, marriage customs, divorce, childbearing, parenting, spousal and other kin relations, across the spectrum of world cultures. Prerequisite: any 100-level course in Anthropology or Sociology or permission of the instructor. Three hours per week. *Four semester hours.* (SS, G.)

ANTH-232. Adaptation in the Pacific and East Asia *Dr. Gallagher*

This course will explore the physical and spiritual views of the peoples of the Pacific and East Asia both pre- and post-Western contact. On the physical side, we will study topics such as the navigation techniques of the Pacific Islanders domestication of plants in New Guinea and the Pacific and the relationship to nature and the many inventions of East Asian cultures. On the spiritual side, we will explore the religions of China, Japan, and Austronesia, and the impact of contact with the West as seen in the Cargo Cults of the Pacific. Prerequisite: any 100-level course in Anthropology or Sociology or permission of the instructor. Three hours per week. *Four semester hours.* (SS, G.)

ANTH-242. Peoples of Africa *Dr. Oboler, Prof. Bowles*

The African continent south of the Sahara is a complex array of cultures. This course will introduce students to sub-Saharan Africa by emphasizing both the tremendous diversity of African cultures and the unifying themes that distinguish Africa as a cultural area. Topics include the history of human settlement and population migrations; social, political, and economic organization; traditional and contemporary religion and belief systems; the impact of European colonization; and contemporary social change. The special case of South Africa receives special attention at the end. Prerequisite: any 100-level course in Anthropology or Sociology or permission of the instructor. Three hours per week. *Four semester hours.* (SS, G.)

ANTH-251. Intermediate Topics in Anthropology *Faculty*

An occasional course which will focus on special topics in anthropology. This course is offered as needed. Any 100-level course in Anthropology or Sociology, or permission of instructor. Three hours per week. *Four semester hours.* (SS, G.)

ANTH-351. Advanced Topics in Anthropology *Faculty*

An occasional course which will focus on special topics in anthropology. This course is offered as needed. Prerequisite: Any 100-level course in Anthropology or Sociology or permission of the instructor. Three hours per week. *Four semester hours.* (SS).

ANTH/ENV-352. Peoples and Their Environments *Dr. Oboler*

Human cultural patterns and social institutions are adaptations to particular physical and social environments and also have impacts on those environments. This course is concerned with the relationship between environments and subsistence systems on the one hand, and social/political institutions and belief systems on the other, using case studies from a variety of traditional societies. We will also consider the relationship between the global ecosystem and problems of Third World development, patterns of peasant production, causes and consequences of rapid population growth, and the fate of indigenous peoples. Prerequisite: any 100-level course in Anthropology or Sociology or permission of the instructor. Three hours per week. *Four semester hours.* (SS, G.)

ANTH-371. Readings in Anthropology I *Faculty*

Readings in anthropology is a directed reading course in which a student can further develop an interest he or she began in a course, or can explore an interest in the field for which we do not provide a course. In order to register for readings, a student must have a clear goal, must present a bibliography to the department member who will be supervising the readings course, and the work will be demonstrated. Prerequisites: A student must be a major in anthropology and sociology, and have completed at least four

courses toward the major. Six to eight hours of reading per week. *Two semester hours.*

ANTH-372. Readings in Anthropology II *Faculty*

A continuation of Anthropology 371. Prerequisites: A student must be a major in anthropology and sociology, and have completed at least four courses toward the major, and have completed Anthropology 371. Six to eight hours of reading per week. *Two semester hours.*

ANTH/HIST-385 Historical Archaeology Field School *Staff*

A six-week summer archaeology course offered in conjunction with The Speaker's House foundation at the Frederick Muhlenberg house site in Trappe, Pennsylvania. The field school course in Historical Archaeology will combine instruction in archaeological methods and theory with hands-on excavation training and experience at an important historical site. Through assigned readings and classroom discussions, on-site training and experience, and weekly laboratory study, field school students will learn historical archaeology techniques and develop the ability to identify and interpret discovered artifacts and place archaeological information within a cultural/historical framework. *Six semester hours.*

ANTH-390. Research *Faculty*

Research involves directed readings and research on an anthropological topic. A student wishing to register for this course must present to the instructor a proposal outlining the research to be completed. The proposal must be approved by the instructor prior to registration. The student must meet with the instructor at regular intervals during the semester, and must submit frequent written progress reports. A final paper will be required. Prerequisites: major or minor status and eight credit hours in the department and the permission of the instructor. *Four semester hours. (I.)*

ANTH-491. Research/Independent Work *Faculty*

This course is open to candidates for departmental honors and to other students with the permission of the department chair. Prerequisites: junior or senior status with a minimum of 16 semester hours in anthropology and sociology and the permission of the department chair. *Four semester hours. (I.)*

ANTH-492. Research/Independent Work *Faculty*

A continuation of Anthropology 491. Prerequisites: Anthropology 491 and permission of the department chair. *Four semester hours. (I.)*

Sociology

Sociology is concerned with the analysis of social life. It is the goal of the department to assist the student in developing insights into why the analysis of social life is considered to be important, what this approach can offer in terms of understanding people, and how it will help us to understand our own society.

SOC-100. Introduction to Sociology *Faculty*

Designed to introduce students to the discipline of sociology, this course emphasizes basic sociological concepts and their applications to various real-life social situations. Topics discussed include society, culture, social groups, interaction, deviance, social stratification, gender roles, race relations, population, urbanization, social change, and social institutions, particularly religion and the family. Four hours per week. *Four semester hours. (SS.)*

Note: Students may not receive credit for both SOC-100 and SOC-110.

SOC-110. Contemporary Social Issues *Faculty*

This course will analyze a variety of current social issues from a sociological perspective. Issues selected will vary from semester to semester, but we will include topics such as poverty, homelessness, access to medical care, and the death penalty. Class, race, and gender issues will be central to this course. Three hours per week. *Four semester hours. (SS, D.)*

Note: Students may not receive credit for both SOC-100 and SOC-110.

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SOC/ENV-220. Environmental Justice *Prof. Hudson*

This course will examine how the burdens of local and global environmental problems are distributed across race, class, and gender. Through the examination of local, national, and international case studies, we will gain an understanding of how the risks associated with exposure to toxic pollutants and other environmental hazards coincide with pre-existing patterns of inequality, both globally and in the United States. Close attention will be paid to the political-historical processes through which the distribution of environmental hazard has been produced, and how affected communities have resisted these processes. Prerequisite: any 100-level course in Anthropology or Sociology or permission of the instructor. Three hours per week. *Four semester hours.*

SOC/GWMS-227. Marriage and the Family *Dr. Oboler, Dr. Gallagher*

This course examines transitions, continuity, and variations in marriages and families in the 20th century United States, with some historical, cross-cultural, and cross-national comparisons. The implications of shifts in public policy for "traditional" and non-traditional families are considered, as well as possible and probable future change in family patterns. Prerequisite: any 100-level course in Anthropology or Sociology, or permission of instructor. Three hours per week. *Four semester hours. (SS, D.)*

SOC-235. Sociology of Religion *Dr. Gallagher*

The sociological study of religion explores the profound impact religion has on our society today as well as the impact that society has on religion. We will analyze the role of religion in reinforcing beliefs, in contributing to social stability, and in advocating change. We will spend some time exploring the religious beliefs of small, traditional non-Western societies and large, complex non-Western societies. We will spend the majority of our time analyzing our own society including the impact of class, race and gender on religious beliefs. Prerequisite: any 100-level course in Anthropology or Sociology, or permission of instructor. Three hours per week. *Four semester hours. (SS, D.)*

SOC-237. Alternative Societies *Dr. Gallagher*

We live in a world we are taught to understand. We think about this world through the shared language and culture of our society which are tools we are not born with but acquire. Our collective understandings make it easier to communicate with each other, but also make it difficult to question the basic tenets of our society. In order to be able to view ourselves more critically, we need to escape the confines of our society and view ourselves from a perspective outside these boundaries. We will accomplish this goal by exploring alternative ways of understanding the world. We will begin by exploring some general ideas about Utopian societies, we will follow that by looking at an alternative history of the United States. We will examine a 20th century construction of a communal society, and then study the Old Order Amish. Prereq.: any 100-level course in Anthropology or Sociology, or permission of instructor. Three hours per week. *Four semester hours. (SS, D.)*

SOC-245. Equality and Inequality *Faculty*

An analysis of the bases and perpetuation of social inequalities, including class, race, gender and other forms of inequality. Theories of causes of stratification and problems of measuring different levels of wealth, power and prestige are examined. Consideration of how social inequality is structured in non-industrial societies precedes emphasis on the nature of social inequality in the United States. Cross-national comparisons of social stratification in modern industrial societies are also made. Prerequisite: Any 100-level course in Anthropology and Sociology or written permission of the instructor. Three hours per week. *Four semester hours. (SS, D.)*

SOC-255. American Ethnic Groups *Dr. Oboler*

This course focuses on ethnic patterns of community social life in urban, suburban, and rural settings. It explores the range and diversity of American ethnic subcultures. It also studies the processes of assimilation and diversification of ethnic groups in the national political, economic and cultural framework. Prerequisites: None. Three hours per week. *Four semester hours. (SS, D.)*

SOC-256. "Other" Minorities *Dr. Oboler*

Characteristics other than race and ethnicity cause many people to become objects of prejudice and discrimination by the mainstream of society. This course examines the experiences of members of these "other" minorities. Homosexuality, physical and mental disability, and religious minority status are some of the characteristics that will be considered. Prerequisite: any 100-level course in Anthropology or Sociology or permission of the instructor. Three hours per week. *Four semester hours. (SS, D.)*

SOC-258. African American Experience *Faculty*

This class explores the experiences of African Americans in the U.S. with the dual focus of exploring the historical context of Black life and many of the contemporary issues facing African Americans. We cannot discuss the position of African Americans in the U.S. without critically examining race and discrimination. Race is a concept that encompasses more than a commonsense understanding; thus, it is one objective of this course to think about the historical development and current manifestations of race in the lives of African Americans. Prerequisite: Any 100-level course in Anthropology or Sociology, or permission of instructor. Three hours per week. *Four semester hours. (SS, D.)*

SOC-260. Intermediate Topics in Sociology *Faculty*

An occasional course which will focus on special topics in sociology. This course is offered as needed. Prerequisite: Any 100-level course in Anthropology or Sociology, or permission of instructor. Three hours per week. *Four semester hours. (SS.)*

SOC/GWMS-263. Gender in Contemporary Society *Dr. Oboler*

After initial examination of the causes of sex differences, focus is placed on the modern American sex/gender role system: socialization and education; economic, political, religious, and family roles; sexual inequality; and gender-based public policy issues. Some cross-cultural and cross-national comparisons are made. Prerequisite: Any 100-level course in Anthropology or Sociology or permission of the instructor. Three hours per week. *Four semester hours. (SS, D.)*

SOC-265. Criminology *Dr. Gallagher*

Criminology is designed to introduce students to the field. In this course we will look at what constitutes criminal behavior, criminal law, and our system of criminal justice. Students will be introduced to the theoretical explanations used by social scientists and others to account for crime. Students will also learn about the production and collection of crime data, and about the "criminogenic" features of modern societies, particularly the United States. Three hours per week. *Four semester hours. (SS.)*

SOC-275. Social Problems *Dr. Gallagher*

Many societal problems have broad historical and/or social implications. In this course, we will analyze a number of these problems, including poverty, racial and ethnic discrimination, sexual discrimination, illness and medical care, the changing family, environmental crises, abortion, terrorism, and war. Prerequisite: None. Three hours per week. *Four semester hours. (SS.)*

SOC-277 through SOC-280. Readings in Social Thought and Action *Dr. Oboler*

This is a student-initiated tutorial designed as an opportunity for students to read classic and current writings in social theory and social action. Students may register for a maximum of four semesters of the class, and no readings will be repeated within a four-semester cycle. Prerequisites: open to students who have completed three semesters of college work. Graded S/U. One hour per week. *One semester hour.*

SOC/ENV-285. Environmental Sociology *Prof. Hudson*

This course will introduce the field of environmental sociology – the study of interactions between humans, groups and the environment. Topics may include species extinction, global climate change, deforestation, air and water pollution. Students will become familiar with a variety of theoretical frameworks for analyzing environmental problems and apply them to a range of environmental issues scaled from the local to the global. Participants will emerge with a critical ability to analyze popular accounts of environmental problems and proposed solutions with a sociological eye. Prerequisite: any 100-level course in Anthropology or Sociology or permission of the instructor. Three hours per week. *Four semester hours.*

SOC-295. Sociology of Medicine *Dr. Gallagher*

The Sociology of Medicine is an exploration of the health care system from the perspective of the people and institutions who provide health care as well as from the perspective of the recipients of health care. Special emphasis will be given to issues of race, class, gender, religious beliefs, and other aspects of diversity. Prerequisite: None. Three hours per week. *Four semester hours. (SS, D.)*

SOC-360. Advanced Topics in Sociology *Faculty*

An occasional course which will focus on special topics in sociology. This course is offered as needed. Prerequisites: Any 100-level course in Anthropology or Sociology or permission of the instructor. Three hours per week. *Four semester hours. (SS.)*

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SOC-375. Readings in Sociology I *Faculty*

Readings in sociology is a directed reading course in which a student can further develop an interest he or she began in a course, or can explore an interest in a field in which we do not provide a course. In order to register for readings, a student must have a clear goal, must present a bibliography to the department member who will be supervising the readings course, and the work will be demonstrated. Prerequisites: A student must be a major in anthropology and sociology, and have completed at least four courses toward the major. Six to eight hours of reading per week. *Two semester hours.*

SOC-376. Readings in Sociology II *Faculty*

A continuation of Sociology 375. Prerequisites: A student must be a major in anthropology and sociology, and have completed at least four courses toward the major, and have completed Sociology 375. Six to eight hours of reading per week. *Two semester hours.*

SOC-387. Political Sociology *Prof. Hudson*

Through exposure to classical and contemporary texts of politics and society, students will explore sociological perspectives on the nature, distribution and use of power in America and globally. We will examine the main theoretical contenders in the struggle to explain political phenomena like revolutions, social movements, wars and the emergence of states. As well, the course delves into the intersection of analytical categories such as race, class and gender with politics and the state. We will discuss the main locations and pathways of power in American society, and how power is changing in a "globalizing" world. Prerequisite: any 100-level course in Anthropology or Sociology or permission of the instructor. Three hours per week. *Four semester hours.*

SOC-391. Research *Faculty*

Research involves directed readings and research on a sociological topic. A student wishing to register for this course must present to the instructor a proposal outlining the research to be completed. The proposal must be approved by the instructor prior to registration. The student must meet with the instructor at regular intervals during the semester, and must submit frequent written progress reports. A final paper will be required. Prerequisite: major or minor status and eight credit hours in the Department and the permission of the instructor. *Four semester hours. (1.)*

SOC-491. Research/Independent Work *Faculty*

This course is open to candidates for Departmental honors and to other students with the permission of the department chair. Prerequisites: junior or senior status, with a minimum of 16 semester hours in sociology and anthropology and permission of the department chair. *Four semester hours. (1.)*

SOC-492. Research/Independent Work *Faculty*

A continuation of Sociology 491. Prerequisites: Sociology 491 and permission of the Department chair. *Four semester hours. (1.)*

Applied Ethics

Professors Goetz, Melrose, Stern; *Associate Professors* Cirka, Evans, Kane, Marks; *Assistant Professors* Greason, Hudson, Rice, Sorensen (*Coordinator*), VanGilder.

Applied Ethics is an interdisciplinary minor that explores ethical issues in medicine, business, politics, law, the environment, and other areas. Courses in the minor seek to develop the student's ability to think critically about moral considerations in various contexts. Courses are drawn from the departments of philosophy, politics, environmental studies, business and economics, and sociology. The minor is a valuable supplement to a variety of undergraduate majors.

Requirements for Minors

A minor in applied ethics consists of 20 credits.

Applied ethics minors must take either PHIL-140 or PHIL-240. It is strongly recommended that one of these courses be among the first courses taken for the minor.

The remaining credits must come from the following: BE-110; ENV/PHIL-248; ENV/SOC-220; PHIL-106, PHIL-140, PHIL-240, PHIL-246, PHIL-247, PHIL-344; PHIL/POL-237, PHIL/POL-337, PHIL/POL-338, PHIL/POL-339; POL-328, POL-330, POL-357.

HIST-329, PHIL-309 and/or POL-399 may also count toward the minor when the topic is appropriate and with prior approval from the applied ethics minor coordinator.

For philosophy or politics majors wishing to minor in applied ethics, at least 12 of the 20 credits for the minor must be in addition to credits already counting toward the major.

Art

Assistant Professors Barkun, Camp, Imatani, Shifrin, Shoaf; Adjunct Professor Hanover.

Studio Art and Art History offerings focus on the preparation of students in the creation of art, the critical study of Art History and the appreciation of visual culture as an integral part of their liberal arts experience. Coursework covers the broad cultural and intellectual context of human civilization, from a visual and historical perspective, and provides an important framework for advanced study in making and interpreting art and the environment. The curriculum integrates art historical foundations with the hands-on creation of art, moving from general survey and introductory courses to advanced studio work, historical studies, and museum practices. The rich resources of the Philip and Muriel Berman Museum of Art and the Philadelphia region will be integral to the learning process. The art major and minors in Studio Art and Art History provide students with an understanding of the human experience through visual and aesthetic means and prepare them for further study in the post-graduate arena, professional internship opportunities, and can serve as a springboard for other professions in the arts. Studio Art classes are numbered 101-149; 200-249; 300-349; and 400-449. Art History classes are numbered 100; 150-199; 250-299; 350-380; 450-489. Internships (381,382) and departmental honors (491,492) are used for both Studio Art and Art History.

An art materials fee is required for all studio art courses.

Major in Art

A major in Art consists of 40 credits in Studio Art and Art History. Students may concentrate in either Studio Art or Art History. Requirements:

1. Two studio art courses: ART-101 and one of the following: ART-102, 104, 105, 106, 130, 303;
2. ART-150 or 160;
3. ART 280W or 450W
4. Five electives selected from Art courses, including a minimum of 2 courses at the 300 or 400 level;
5. One capstone course (ART-401, 450W, 492). The Capstone experience includes a research project or a student exhibit as well as an oral presentation. Students concentrating in Studio Art will complete a professional portfolio and will use ART-401 or 492 as the capstone. Students concentrating in Art History will use ART-450W or 492 as the capstone;
6. Study abroad in an approved program or an off-campus internship in an art institute or coursework at an approved art program. Strongly recommended: 2 semesters of a foreign language at the 200 level or above.

Minor in Studio Art

A minor concentration in Studio Art consists of 20 credits in art. Four courses in Studio Art (ART-101-106; 130; 201-206; 300 or 400 level studio art classes) and one course from the following: ART-100, 150, 160, 280W, 290. ART-101 is strongly recommended.

Minor in Art History

A minor concentration in Art History consists of 20 credits. One course selected from ART-150 or 160 and one course at the 300 or 400 level, excluding internship, are required. One course in Studio Art is strongly recommended and may be included in the 20 credits.

ART-100. Introduction to the Visual Arts *Faculty*

The course provides an introduction to the principal elements of the visual arts, including architecture. The purpose of the course is to provide a foundation for an understanding of the visual arts. The approach will be topical, drawing from the spectrum of Western and non-Western art. Intended for freshmen and sophomores. Three hours per week. *Four semester hours. (A.)*

ART-101. Drawing I *Faculty*

This course teaches students perceptual drawing, including drawing technique, the study of form through the use of line, shape, light and shade, and pictorial composition. We will work with still life, landscape and the figure. Students are expected to develop a portfolio of work outside of the formal class meetings. We will work in a variety of drawing mediums such as pencil, charcoal, conte, pen and ink, and pastels. Intended for freshmen and sophomores. Three hours per week plus extensive individual work in the studio. *Four semester hours. Art materials fee. (A.)*

ART-102. Painting I *Faculty*

Introduction to the techniques of painting using watercolor and oils. A basic study of form through the use of color. We will work directly from nature, landscape, still life, and the figure, including portrait. Students are expected to develop a portfolio of work outside the class meetings. Intended for freshmen and sophomores. Three hours per week plus extensive individual work in the studio. *Four semester hours. Art materials fee. (A.)*

ART-104. The Art of Photography I *Prof. Camp*

To explore the expressive qualities of black & white photography as an art form, the student will learn the use of the camera and basic darkroom techniques. The student will learn how to see photographically through a study of contemporary and historical photography, as well as through practical exercises. Students are expected to develop a portfolio of work outside the class meetings. Intended for freshmen and sophomores. Three hours per week plus extensive individual work. *Four semester hours. Art materials fee. (A.)*

ART-105. Printmaking I *Faculty*

This course introduces students to the art of printmaking. Students will study relief printing, linoleum block, woodcut in both traditional black and white and color, using multiple blocks, and monotype. Introduction to etching. Students are expected to develop a portfolio of work outside the class meetings. Intended for freshmen and sophomores. Three hours per week plus extensive individual work in the studio. *Four semester hours. Art materials fee. (A.)*

ART-106. Sculpture I *Dr. Imatani*

An introduction to three-dimensional art using traditional sculpture techniques, terra-cotta and plaster. Modeling, casting and carving in a variety of mediums. Introduction to wheel and pinch pottery. Students will work directly from the live model in figure and portrait. Intended for freshmen and sophomores. Three hours per week plus extensive individual work in the studio. *Four semester hours. Art materials fee. (A.)*

ART/TD-130. Introduction to Design *Faculty*

In this studio class, students will be introduced to principles of theatrical design and the artistry of imagination. They will explore how theater designers think about images and use elements such as line, shape, space, mass, texture, light and color to create visual expression and communicate dramatic intention in three-dimensional space. Students will gain an understanding of the effect of lighting, scenic and costume design choices for theater and dance productions. Four hours per week. *Four semester hours. (A.)*

ART-150. History of Art I: Ancient Through Medieval *Dr. Shoaf*

An exploration of the stylistic and conceptual developments of Western architecture, painting and sculpture from prehistory through the Medieval period. A chronological survey and inquiry into questions of form and meaning will guide an investigation of the relationship between art and society. An interdisciplinary approach will be taken. Three hours per week plus museum trips. *Four semester hours. (A.)*

ART-160. History of Art II: Renaissance to Modern *Faculty*

A study of architectural monuments, paintings, and sculptures from the Renaissance through the Modern periods. A chronological approach and an inquiry into form and meaning will guide an exploration into the changing concept of space, time and society. Readings from other disciplines will be used to examine contextual issues, such as the political and religious uses of arts, the relationship between art and science, the profound social transformations that occurred during the period and the political significance of artistic practice. Issues such as class, gender, reception and spectatorship, racism, and Eurocentrism will be addressed. Three hours per week plus museum trips. *Four semester hours. (A.)*

ART-201. Drawing II *Faculty*

A continuation of the study of form through drawing emphasizing more sustained studio work. Students must develop their techniques in significant independent work beyond the contact hours. Students are expected to develop a portfolio of work outside the class meetings. Prerequisite: Art 101 or permission of instructor. Three hours per week plus extensive individual work in the studio. *Four semester hours. Art materials fee. (A.)*

ART-202. Painting II *Faculty*

A continued study of form through the use of color, building on skills acquired in Painting I. Classroom work will consist of painting from life, landscape and figure objects, but emphasis will be on more sustained work and personal exploration. Students will develop a portfolio and expand their techniques in significant independent work beyond the contact hours. Prerequisite: Art 102 or permission of instructor based on portfolio. Three hours per week plus extensive individual work in the studio. *Four semester hours. Art materials fee. (A.)*

ART-204. The Art of Photography II *Prof. Camp*

A continuation of Art 104. Students will investigate spaces and places defined by time with visual tools that record light. They will convert cultural, social, political, and philosophical issues into visual statements using the medium of photography. Students are expected to develop a portfolio of work outside class meetings. Prerequisite: Art 104 or permission of the instructor. Three hours per week plus extensive individual work. *Four semester hours. Art materials fee. (A.)*

ART-205. Printmaking II *Faculty*

A continuation of Printmaking I. Emphasis on etching as well as an introduction to lithography and silk screen printing. Students are expected to develop a portfolio of work outside the class meetings. Prerequisite: Art 105 or permission of the instructor. Three hours per week plus extensive individual work in the studio. *Four semester hours. Art materials fee. (A.)*

ART-206. Sculpture II *Dr. Imatani*

A continuation of Sculpture I. Students will further develop their skills in terra-cotta, stone and wood carving as well as learn special techniques such as medallion work. Prerequisite: Art 106 or permission of the instructor. Three hours per week plus extensive individual work in the studio. *Four semester hours. Art materials fee. (A.)*

ART/MCS-220. Introduction to New Media *Prof. Scranton*

An introduction to digital media through artistic creation and critical analysis. Students will learn how to construct, communicate, and interpret messages disseminated through digitally manipulated images and interactive web-based content. Class critiques will be conducted upon the completion of each assignment. Three hours of lecture, one hour of lab per week. *Four semester hours. (A)*

ART-250. Special Topics in Art History *Faculty*

A focused exploration of special subject areas and/or periods in Western, Asian and African art. Students will utilize regional museums and archives for individual research projects. Museum trips required. This course could also be held off campus. Open to all students although a course in art history is strongly recommended. Three hours per week. *Four semester hours. (A.)*

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ART-260. Special Topics in Art History — International Experience *Faculty*

An international experience in which a focused exploration of special subject areas and/or periods in art is conducted abroad. Individual research projects and group museum and historic site excursions required. Open to all students although a course in art history is strongly recommended. *Four semester hours. (A.)*

ART-270. History of Photography *Faculty*

An introduction to photographers and their images from 1829 to the present with attention to photographic images created from diverse cultural perspectives. Emphasis is on the development of photography as a fine art. Readings will be selected from artists and critics in the field. Open to all students. Three hours per week plus museum trips. *Four semester hours. (A.)*

ART-280W. Modern Art *Faculty*

An examination of Western art from the 1860s to the 1960s. The history of modern art from Manet and the Impressionists in the late 19th century, through movements of Post-impressionism, Symbolism, Expressionism and Cubism at the turn of the century to Abstract Expressionism, Minimalism and Pop after the Second World War will be discussed. Artists' work, lives, and contexts will be discussed as will the meanings and consequences of modernism itself. Approaches taken toward the material range from formalist to feminist with particular attention to the relationship between art and society. Three hours per week plus museum trips. *Four semester hours. (A.)*

ART-290. American Art *Faculty*

An examination of American painting, sculpture and architecture in the United States from its earliest settlement to World War II. Emphasis is placed on the relationship between artistic production/content and the prevailing social and political conditions. Issues to be explored include: art as the expression of personal and national identity; public censorship; the artist's role and status in society; and art as a cultural commodity. The Berman Museum and the museums of Philadelphia will be used extensively. Three hours per week. *Four semester hours. (A.)*

ART-303. Special Topics in Studio Art *Faculty*

The course offers an opportunity to develop creative ability using various two and three-dimensional media. The specific course focus will vary from semester to semester, but topics may include graphic design, ceramics, advanced scenic design and other topics of interest to students. Prerequisite: one studio art course or permission of the instructor. Three hours per week plus extensive individual work. *Four semester hours. Art materials fee. (A.)*

ART/MCS-325. Tactics, Media, and Art *Prof. Scranton*

This course traces the origins of new media art, practice and theory, from the post-World War II era through to the present. Students will be introduced to a wide range of artistic and cultural movements aimed at socio-political transformation while paying special attention to contemporary genres such as performance art, installation art, and tactical media art. Three hours per week. *Four semester hours.*

ART-350. Special Topics in Art History *Faculty*

A focused exploration of special subject areas and/or periods in art. Students will utilize regional museums and archives for individual research projects. This course could also be held off campus. Prerequisite: ART150 or 160 or permission of instructor. Three hours per week plus museum trips. *Four semester hours. (A.)*

ART-360. Museum Studies *Dr. Shiffrin*

An introduction to the social and political history of museums, as well as the structure, function and practices of museums in America and Europe. The Berman Museum will be our laboratory, and independent projects will focus on objects from the Museum's collections. Outside scholars and specialists will offer in-depth examination of selected topics. Visits are made to regional museums. Three hours per week. *Four semester hours. (A.)*

ART-381. Art Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact art faculty for further details. Prerequisites: approval of an internship adviser and three courses in art. 120 hours. *Three semester hours. (I.)*

ART-382. Art Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact art faculty for further details. Prerequisites: approval of an internship adviser and three courses in art. 160 hours. *Four semester hours. (I.)*

ART-401. Special Projects in Fine Art *Faculty*

Advanced independent work on a creative project approved and supervised by a faculty adviser. An oral presentation is required. Prerequisite: A juried portfolio or other creative works. *Four semester hours. Art materials fee. (A, I.)*

ART-450W. Seminar in the History of Art *Faculty*

In this course, students will further develop research criteria and techniques, using museum and library resources, in topics in a specific era of art history. An oral presentation is required. Prerequisite: ART-150 or ART-160; and permission of instructor. Three hours per week plus museum trips. *Four semester hours. (A.)*

ART-491. Research/Independent Work *Faculty*

This course is open to candidates for departmental honors and to other students, with the permission of the instructor. *Four semester hours. (I.)* Art materials fee for studio art project.

ART-492. Research/Independent Work *Faculty*

A continuation of Art 491. An oral presentation is required. Prerequisite: Art-491. *Four semester hours. (I.)* Art materials fee for studio art project.

Biochemistry and Molecular Biology

Professors E. Dawley, R. Dawley, Hess, Levy, Sidie, Small, Tortorelli; *Associate Professors* Bailey, Goddard, Kohn, Lobo, Lyczak, Roberts (*Coordinator*), Williamsen; *Assistant Professors* Ellison, Popescu.

Biochemistry and Molecular Biology (BCMB) is an interdisciplinary major that includes courses in biology, chemistry, mathematics, and physics. Students pursuing this major will explore the chemical interactions that underlie life's diversity. Courses in the major will cover the theoretical basis of knowledge in biochemistry and molecular biology and the experimental strategies used by scientists in these fields. Laboratories will foster creative experimental work by students and familiarize them with current techniques and equipment used by biochemists and molecular biologists. It is the goal of this program to prepare majors for graduate study in biochemistry and molecular biology, post-baccalaureate study in the health sciences, and careers in the pharmaceutical and biotechnology industries.

Requirements for Biochemistry and Molecular Biology Majors

A major in Biochemistry and Molecular Biology requires BCMB-307, 351, 426W or 429W or 433W and 452W; Biology 101Q, 102Q, 201W; Chemistry 105/105LQ (or 151/151LQ in place of 105/105LQ and 206/206L), 106/106L, 205/205L, 206/206L, 315, 309L or 315L; Mathematics 112; and Physics 111Q.

BCMB-291. Introduction to Research *Faculty*

Laboratory and library work, under the direction of a faculty member, designed to introduce the student to fundamental research procedures and data interpretation in the context of a research project. Upon completion of the work, a formal presentation must be given. This course may be taken more than once. At the time of registration, written consent of the instructor is required. Three hours of laboratory per week. Graded S/U. *One semester hour.*

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BCMB-307. Physical Chemistry for the Life Sciences *Dr. Popescu, Dr. Ellison*

A study of thermodynamics, transport properties and kinetics as applied to biological systems. Prerequisites: Chemistry 206; Math 112; Physics 111Q. Three hours per week. *Three semester hours. (LS if taken with CHEM-309a.)*

Note: Students may not receive credit for both BCMB-307 and CHEM-309.

BCMB-351. Biochemistry I *Dr. Roberts, Faculty*

The study of properties, structure, synthesis and function of proteins, carbohydrates, lipids, and nucleic acids. Enzyme catalysis, metabolism of biomolecules, and the biochemical basis of selected physiological processes are also included. Prerequisites: Biology 201W and Chemistry 205, 205L, 206 and 206L, or permission of instructor. Three hours of lecture; three hours of laboratory. *Four semester hours. (LS.)*

BCMB-381. Internship *Faculty*

An off-campus academic/work experience with a primary focus on a laboratory research project. Before beginning the internship, the student must submit a proposal to be approved by the faculty internship advisor. Upon completion of the work, written and oral presentations must be made to the program faculty. Prerequisites: Biology 201W and Chemistry 206L. Ten-12 hours per week with a minimum of 160 hours for one semester or four weeks of full-time work. Graded S/U. *Four semester hours. (I.)*

BCMB-391. Research/Focused Inquiry *Faculty*

Laboratory and library work, under the direction of a faculty member, designed to introduce the student to fundamental research procedures and data interpretation in the context of a research project. Upon completion of the work, a formal presentation must be given. This course may be taken more than once. At the time of registration, written consent of the instructor is required. Six hours of laboratory per week. Graded S/U. *Two semester hours.*

BCMB/BIO-426W. Molecular Biology *Dr. Lobo*

A survey of gene structure, transcription, translation, regulation, and replication, as well as the theory underlying laboratory techniques used in their study. Laboratory experiments will include DNA and protein isolation, enzymatic manipulations, electrophoresis, and nucleic acid hybridization in an attempt to clone and analyze a bacterial gene. Prerequisites: Biology 201W; or permission of the instructor. Three hours of lecture; three hours of laboratory. *Four semester hours. (LS.)*

BCMB/BIO-429W. Structural Biology *Dr. Roberts*

An introduction to the principles of protein and DNA structure, X-ray crystallography, structure visualization and interpretation, and bioinformatics. The use of these concepts to understand biological function at the level of individual molecular interactions and at the level of complex processes will be demonstrated through specific biological examples. Laboratory work will emphasize structure-determining techniques and use of scientific databases and protein visualization software. Prerequisite: Biology 201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (LS)*

BCMB/BIO/NEUR-433W. Molecular Neurobiology *Dr. Kohn*

A study of the cellular and molecular basis of neuronal function. The course includes molecular properties of neurons, release of neurotransmitters, receptors in synaptic transmission, effects of drugs, synaptic plasticity, and neurological disorders. Prerequisites: Biology 201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (LS.)*

BCMB-452W. Biochemistry II *Dr. Roberts*

The study of diverse, complex interactions among biomolecules introduced in BCMB-351, considering both natural (in vivo) and artificial (in vitro) contexts. Cellular mechanisms underlying the regulation of biomolecular interactions and their relevance to selected areas of discovery are also included. This course (together with BCMB-426W, -429W or -433W) fulfills the capstone, oral and writing requirements of the major. Prerequisite: BCMB-351. Three hours of lecture; three hours of laboratory. *Four semester hours. (LS.)*

BCMB-491. Independent Research Faculty

Independent laboratory and library investigation in biochemistry and/or molecular biology, with oral progress reports and a research paper presented to the program faculty. This course may be taken more than once. At the time of registration, written consent of the research advisor is required. 12-14 hours of laboratory per week. *Four semester hours. (1.)*

BCMB-492W. Independent Research Faculty

A continuation of BCMB-491 with a final seminar and thesis describing research work. Emphasis is placed on oral and written presentation, as well as advanced laboratory techniques. Prerequisites: BCMB-491, BCMB-452W (or concurrently). 12-14 hours of laboratory per week. *Four semester hours. (1.)*

Departmental Honors in Biochemistry and Molecular Biology

Students successfully completing BCMB-491/492 may be awarded honors but no additional credits will be given. Description of the honors program, including qualifications, is detailed in this catalog.

Biology

Professors E. Dawley, R. Dawley, Fields, Sidie, Small (*Chair*); *Associate Professors* Bailey, Goddard, Kohn, Lobo, Lyczak, Roberts; *Assistant Professors* Kemp, Straub; *Lecturer/Principle*.

The underlying philosophy of the departmental curriculum is to provide a balanced and current biological education within the broader context of the liberal arts. The curriculum has been designed to keep pace with new developments in the field and to afford students as broad a base as possible for understanding the principles governing life processes. Coursework provides a firm foundation of knowledge in the various sub-disciplines, fosters the scientific attitude, and familiarizes students with current research methods. A capstone course, coupled with oral and written experiences within the department, helps to develop and reinforce the ability to think clearly, critically and independently. In the junior and senior years, students have the opportunity to pursue an independent project, which may include research with a faculty mentor.

Successful completion of the curriculum prepares students for graduate work, for employment in a biologically oriented profession, or for admission to professional schools in the several fields of medicine and related health services. The department also participates in a program leading to teacher certification in secondary schools as described below.

Requirements for Majors

To fulfill the requirements of the major, all students must complete 36 semester hours of biology as outlined in the departmental core and the ancillary requirements listed below.

I. Required Courses:

Biology 101Q, 102Q, 201W and one of the following capstone courses: Biology 415W (or ENV-415W), 424W, 425W, 426W (or BCMB 426W), 429W (or BCMB 429W), 431W (or NEUR-431W), 433W (or BCMB 433W or NEUR 433W), 442W, 449W, 459W, 492W, BCMB 452W.

II. Distribution Requirements:

- A. Molecular/Cellular Biology: At least one course must be completed from the following: Biology 425W, 426W (or BCMB 426W), 429W (or BCMB 429W), 431W (or NEUR 431W), 433W (or BCMB 433W or NEUR 433W), 449W, 459W, BCMB 351, BCMB 452W.
- B. Integrative Biology: At least one course must be completed from the following: Biology 250, 306, 310, 335, 345, 346, 349, 394, 415W (or ENV 415W).
- C. Organismal/Population Biology: At least one course must be completed from the following: Biology 220, 222, 232, 305, 320, 330, 334, 424W, 442W.

III. Electives:

Chosen in accordance with the major area of interest and bringing the total to a minimum of 36 credit hours in biology.

Note: A maximum of 10 credit hours of research (Biology 391, 392, 481, 485, 491, 492W), including no more than 3 credit hours from among Biology 391 and 392, may be applied to the major. A maximum of 12 credit hours of research, including no more than 3 credit hours from among Biology 391 and 392, may be applied to graduation.

IV. Required of all majors:

- A. Chemistry: 105/105L and a choice of 106/106L or 206/206L.
- B. Mathematics/Computer Science: Any two of the following-Mathematics 111, 112, 241Q, 242, 243, Computer Science 173.

V. Recommended of all majors:

- A. One year of physics
- B. A second year of organic chemistry

Requirements for Minors in Biology

A minor concentration in biology consists of Biology 101Q, 102Q, 201W, and at least 8 additional elective credits in biology, exclusive of internships or research.

Requirements for Minors in Neuroscience

A minor concentration in neuroscience consists of either NEUR-120Q or PSYC-100; MATH-241Q or PSYC-110; any three courses from the following list; PSYC-320; NEUR/PSYC-325; NEUR/PSYC-335; NEUR/BIO-431; or any one of NEUR-481W, NEUR-482W, NEUR-491, or NEUR-492W, NEUR/PSYC-327 is recommended but not required.

Special Career Interests

- I. Students seeking admission to graduate programs in biologically related fields should note the following:
 - A. A second year of chemistry is strongly recommended.
 - B. A fifth course in chemistry is recommended.
 - C. Mathematics/Computer Science 241Q, 242, or 243 and Computer Science 173 are recommended.
 - D. Additional coursework in mathematics/computer science is recommended.
- II. Prospective secondary school teachers whose interest is biology and who wish to be certified in biological science should note the following:
 - A. Physics 111Q is required; a year of physics is recommended.
 - B. Geology 105Q is required.
 - C. Two mathematics courses are required from among Mathematics 111, 112, 241Q, 242, 243, and Computer Science 173.
 - D. Chemistry 105/105L and a choice of 106/106L or 206/206L are required.
 - E. It is highly recommended that prospective teachers serve at least one semester as departmental assistants.
 - F. Dual certification in general science is highly recommended.
 - G. The curriculum beyond the first year must be arranged in consultation with the chairman

of the department of education or with the departmental teacher education adviser.

Students and their advisers should consult the Ursinus College Education Department.

III. Students seeking admission to schools of medicine, dentistry, veterinary medicine, optometry and podiatry should note the following:

- A. Two years of chemistry and one year of general physics for science majors are required by all of the above schools.
- B. Many schools also require one full year of English and some specify one or two semesters of calculus.
- C. Students and their advisers should consult the premedical handbook or one of the premedical advisers for requirements of specific schools.

IV. Students seeking admission to other health science programs, such as physical therapy, should consult the departmental allied health adviser.

V. Students who seek employment in a biologically oriented profession should note the following:

- A. Mathematics 241Q, 242, and Computer Science 173 are strongly recommended.
- B. Business and Economics 100 and 140 are recommended.
- C. Additional coursework in Media and Communication Studies is recommended.
- D. Additional courses that emphasize writing are recommended.

BIO-101Q. Issues in Ecology and Evolution Dr. E. Dawley, Dr. R. Dawley, Dr. Small, Dr. Straub

Approaches the fundamental principles of ecology and evolution using the examination of specific case studies and the current scientific literature. Principles will include population growth, organismal adaptations and ecosystem level interactions, all in the light of natural selection theory. Lecture readings and laboratory exercises will employ the scientific method and emphasize quantitative analysis of data. Three hours of lecture; an average of one and one-half hours of laboratory per week. *Four semester hours. (LS)*

Note: Students who have received credit for BIO 111WQ may not enroll in BIO 101Q.

BIO-102Q. Cell Biology and Genetics of Health and Disease Dr. Bailey, Dr. Lobo, Dr. Kohn and Dr. Roberts

Approaches the fundamental principles of cell biology and genetics using the examination of specific case studies and the current scientific literature. Principles will include molecular structure and function of cells, classical genetics, generation of biochemical energy, cell cycle regulation and cancer, and neuronal communication. Lecture readings and laboratory exercises will employ the scientific method and emphasize quantitative analysis of data. Three hours of lecture; an average of one and one-half hours of laboratory per week. *Four semester hours. (LS)*

Note: Students who have received credit for BIO 212WQ may not enroll in BIO 102Q.

BIO-201W. Genetics and Biology of the Cell Dr. Goddard, Dr. Kohn, and Dr. Lyczak

Exploration of principles in genetics and cell biology using examination of specific case studies and the scientific literature. Topics include advanced Mendelian genetics, molecular genetics, population biology, cell signaling, and enzyme kinetics. Prerequisites: BIO 101Q and BIO 102Q, or permission of the instructor. Three hours of lecture per week and three hours of laboratory per week. *Four semester hours. (LS)*

Note: Students who have received credit for BIO 213 may not enroll in BIO 201W.

BIO/ENV-220. Biology of Maya Mexico Dr. E. Dawley, Dr. R. Dawley

A study of the environments, fauna, and flora of tropical Mexico and their relation to the Maya people who inhabit that region. We will examine coral reefs, coastal waters, and lowland and highland forests, focusing on animals and plants of particular importance to the ecosystem they inhabit and to the Maya people, past and present. Prerequisite: None. Field investigations accompanied by readings, lectures, and an independent project resulting in a review or research paper. *Four semester hours. (This course is part of the UC in Maya Mexico Program.) (LS)*

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BIO-222. Vertebrate Biology *Faculty*

A study of the diversity, lifestyles and adaptations of modern vertebrate animals and their interactions with one another and with the environment. Prerequisite: BIO-201W; or permission of the instructor. Three hours of lecture per week. *Four semester hours. (LS)*

BIO-232. Ethology *Dr. Sidie*

A study of the biological basis of behavior. Topics include the neural and hormonal basis of behavior, orientation mechanisms, biological clocks, animal communication, learning, sociobiology, genetics of behavior, and the evolution of behavior. Prerequisite: BIO-201W; or permission of the instructor. Three hours of lecture per week. *Three semester hours. (LS if taken with BIO-232a.)*

BIO-232a. Ethology Laboratory *Dr. Sidie*

Experimental investigations of animal behavior. Topics studied include orientation reactions, fish schooling, circadian rhythms, electric fish, habitation, conditioning, pheromones, social behavior, sensory signals and territoriality. Pre- or co-requisite: BIO-232. *Three hours of laboratory per week. One semester hour. (LS if taken with BIO-232.)*

BIO/ENV-250. Environmental Biology *Dr. Sidie*

A study of the biological basis of environmental issues. Includes ecosystems, communities, populations, water, energy, geologic resources, biodiversity, weather/climate, pollution, agriculture/hunger, soil resources/pests, solid/toxic hazardous waste, toxicology, land use. Prerequisite: BIO-101Q or permission of the instructor. Three hours of lecture; three hours of lab per week. *Four semester hours. (LS.)*

BIO-305. Human Anatomy and Functional Morphology *Faculty*

A study of the structure of human tissues, organs and organ systems and their contributions to the integrated functioning of the human body. Prerequisite: BIO-201W; or permission of the instructor. Three hours of lecture and three hours of laboratory per week. *Four semester hours. (LS.)*

BIO-306. Human Physiology *Dr. Bailey*

A study of the physiological processes that support the integrated functioning of the human body. Prerequisite: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (LS.)*

BIO/ENV-310. Biological Oceanography *Dr. Goddard, Dr. Sidie*

A study of the biological bases of ocean science. Topics discussed include: ocean basins, seawater physics and chemistry, currents, waves, tides, upwelling zones, tidal rhythms in organisms, ocean habitats/biota, marine virology, marine microbiology, plankton, trophic relationships, hydrothermal vent communities, coral reefs. Prerequisite: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. (Course may be conducted in part at a marine field station). *Four semester hours.*

BIO/ENV-320. Biology of the Neotropics *Dr. E. Dawley, Dr. R. Dawley*

A field study of Costa Rican tropical habitats — including lowland rain forests, montane rain forests, seasonally dry forests, and wetlands — conducted at research sites throughout the country. Topics include diversity and natural history of key plants and animals, ecological interactions and evolutionary processes, and conservation. Prerequisite: Permission of the instructor and BIO-101Q. Field investigations accompanied by readings, lectures, and a directed research project. Course will meet 15 hours on campus and three weeks in Costa Rica between the Fall and Spring semesters. *Four semester hours. (LS.)*

BIO/ENV-330. Marine Biology *Dr. Sidie*

A field-oriented study of the important marine habitats including pelagic and benthic zones, and intertidal communities. Topics include marine biodiversity-plants, protists, invertebrates, vertebrates; marine ecology; primary production in the sea; estuaries; plankton; nekton; marine mammals; ocean pollution. Prerequisite: Permission of the instructor and BIO-101Q. Lecture and field investigations. (Course conducted in part at a marine field station.) *Four semester hours. (LS.)*

BIO-334. Plant Biology *Dr. Small*

A survey of the morphology and evolution of the monophyletic green plant clade, including the principles, theory and methodology underlying modern taxonomic systems. Available field time centers upon the

morphology and taxonomy of the local vascular flora. Prerequisite: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (LS.)*

BIO-335. Plant Physiology *Dr. Fields*

A study of life processes of green plants and the environmental factors that regulate them. Experiments will illustrate physiological concepts. Prerequisite: BIO-201W and CHEM-105 and 105L; or permission of instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (LS.)*

BIO-345. Microbiology *Dr. Lobo*

The structure, physiology, genetics, diversity, and ecology of micro-organisms. Topics in medical microbiology will be discussed to illustrate basic principles of pathology, virology, immunology, and epidemiology. The laboratory will cover techniques of bacterial propagation, purification, identification, and genetic experimentation. Prerequisites: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (LS.)*

BIO-346. Developmental Biology *Dr. Lyczak*

An investigation of the cellular and molecular mechanisms that control animal development. The role of developmental regulators and cell-cell communication in the embryo will be discovered in the context of fertilization, axis formation, gastrulation and organogenesis in a variety of model organisms. Laboratory work will focus on hypothesis driven inquiry and will include analysis of both vertebrate and invertebrate development. Prerequisite: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (LS.)*

BIO-349. Experimental Physiology *Dr. Bailey*

An investigation of the basic principles of vertebrates. Included will be the study of cell physiology, organ function, and systems physiology, including the nervous, cardiovascular, respiratory, gastrointestinal and renal systems. The laboratory will emphasize cooperative problem-solving, experimental design, and independent investigation. Prerequisites: BIO-201W and CHEM-106,106L; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (LS.)*

Note: Students having received credit for BIO-306 may not credit for BIO-349.

BIO-350. Selected Topics in Biology *Faculty*

A course offered periodically in an area of special interest to students by a faculty member or a visiting lecturer. Prerequisite: permission of the instructor. Three hours per week, plus either intensive writing or three hours of laboratory, depending on the topic. *Four semester hours. (LS, if lab associated with course.)*

BIO-381. Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact the chairman of the department for further details. Prerequisites: Junior standing, nine credits in biology, and approval of a faculty internship adviser. Eleven to 14 hours per week. Graded S/U. *Four semester hours.*

Note: Students having received credit for BIO-485 may not receive credit for BIO-381.

BIO-391. Directed Research *Faculty*

Laboratory and/or field experiences under the direction of a faculty member and designed to introduce students to fundamental research procedures and data manipulation in the context of an original research project. This course can be taken more than once. Prerequisite: permission of a participating faculty member. Three hours of laboratory per week. Graded S/U. *One semester hour.*

BIO-392. Directed Research *Faculty*

Content as in BIO-391. This course can be taken more than once. Prerequisite: permission of a participating faculty member. Six hours of laboratory per week. Graded S/U. *Two semester hours.*

BIO/ENV-394. Watershed Investigations and Actions *Dr. Goddard*

This course combines class time, research, and community action. Scientific and historical aspects of the Darby Creek watershed examined will include a brief survey of creek flora and fauna and physical properties (limnology), land development directly adjacent to the creek starting in the U.S. colonial period and the industries along the creek that lead to the declaration of a Superfund Site along the creek. Laboratory research

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is an investigation of pollution in a species of creek fish. Community action is a survey of pollution-indicator macroinvertebrate species with elementary schools throughout the watershed. Prerequisite: BIO-201W; or permission of the instructor. Two hours of lecture and 7 hours of laboratory/community action per week. *Four semester hours.*

BIO/ENV-415W. Ecology *Dr. Small*

Studies of the interrelationships between organisms and their environments that determine their distribution and abundance in natural systems. Aspects of energy flow, biotic and abiotic limits, population growth and community organization are considered in the context of the ecosystem. Laboratories include local field work and emphasize techniques for collecting and analyzing data. Prerequisites: BIO-101Q and 102Q and 201W, or permission of the instructor. This course fulfills the ENV capstone requirement. Three hours of lecture, three hours of laboratory per week. *Four semester hours. (LS.)*

BIO-424W. Evolution *Dr. R. Dawley*

A study of the Darwinian theory of adaptation and natural selection, focusing on areas of current interest and controversy, such as its application to animal and human behavior and to the study of medicine and disease. Prerequisites: BIO-201W; or permission of the instructor. Three hours of lecture per week. *Four semester hours.*

BIO-425W. Molecular Genetics *Dr. Lyczak*

An investigation of the molecular mechanisms underlying complex genetic phenomena. The course will cover epigenetic inheritance, gene regulation, gene therapy, RNA interference, molecular control of the cell cycle, multifactorial genetic disorders, and molecular evolution through reading and careful analysis of current primary research articles. Prerequisites: BIO-201W; or permission of the instructor. Three hours per week. *Four semester hours. (LS.)*

BIO/BCMB-426W. Molecular Biology *Dr. Lobo*

A survey of gene structure, transcription, translation, regulation, and replication, as well as the theory underlying laboratory techniques used in their study. Laboratory experiments will include DNA and protein isolation, enzymatic manipulations, electrophoresis, and nucleic acid hybridization in an attempt to clone and analyze a bacterial gene. Prerequisites: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (LS.)*

BIO/BCMB-429W. Structural Biology *Dr. Roberts*

An introduction to the principles of protein and DNA structure, X-ray crystallography, structure visualization and interpretation, and bioinformatics. The use of these concepts to understand biological function at the level of individual molecular interactions and at the level of complex processes will be demonstrated through specific biological examples. Laboratory work will stress structure-determining techniques and use of scientific databases and protein visualization software. Prerequisite: Biology 201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (LS.)*

BIO/NEUR-431W. Cellular Neurobiology *Dr. Sidie*

A study of the neuron structure and function. The course includes excitable cell membranes, ion channels, synapses, sensory receptors, neuronal integration, neuromuscular systems, coding of neural information, and computer simulation of neural systems. Prerequisites: Biology 201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (LS.)*

BIO/BCMB/NEUR-433W. Molecular Neurobiology *Dr. Kohn*

A study of the cellular and molecular basis of neuronal function. The course includes molecular properties of neurons, release of neurotransmitters, receptors in synaptic transmission, effects of drugs, synaptic plasticity, and neurological disorders. Prerequisites: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (LS.)*

BIO-442W. Mammalogy *Dr. E. Dawley*

A study of vertebrate biology using the mammalian class as the case study. The course includes evolutionary history, phylogeny, diversity, structure and function, behavior and ecological aspects of mammals. Prerequisites: BIO-201W; or permission of the instructor. Three hours of lecture; three hours of laboratory and field investigations per week. *Four semester hours. (LS.)*

BIO-449W. Immunology *Dr. Lobo*

A study of the cellular and humoral aspects of immunity in humans and other mammals. The course will cover interactions between mammalian hosts and bacterial, fungal, and viral antigens: tumor and transplantation immunology, vaccines and their development and the evolution of the immune system. Prerequisites: BIO-201W; or permission of the instructor. BIO-345 is recommended. Three hours per week. *Four semester hours.*

BIO-459W. Virology *Dr. Goddard*

After an introduction to general virology, each virus family and its unique approaches to host cell entry, viral replication, and transmission will be discussed. Topics covered will include the social, historical and economic impact of human diseases such as yellow fever and Ebola hemorrhagic fever, and important diseases of crops and agricultural animals. Prerequisites: BIO-201W; or permission of the instructor. Four hours per week. *Four semester hours.*

BIO-481. Independent Research *Faculty*

Laboratory or field investigation of some biological phenomenon. This original work includes library-assisted preparation of a final written thesis and the oral presentation of its results before a faculty/student colloquium. This course can be taken more than once. Pre- or co-requisites: junior or senior standing, written consent of a faculty member who will serve as research adviser. Graded S/U. *Four semester hours.*

BIO-485. Off-Campus Research *Faculty*

An approved, off-campus field or laboratory research experience supervised by a faculty internship adviser and an on-site supervisor. Approved projects result in the library-assisted preparation of a final written thesis and an oral presentation of its results before a faculty/student colloquium. This course can be taken more than once. Prerequisites: Junior or senior standing and written consent of a faculty adviser. 11 to 14 hours per week. Graded S/U. *Four semester hours.*

Note: Students having received credit for BIO-381 may not receive credit for BIO-485.

BIO-491. Honors Research *Faculty*

Content as in BIO-481, but open only to candidates for departmental honors. Prerequisite: junior or senior standing, written consent of a faculty member who will serve as research adviser. *Four semester hours.*

BIO-492W. Honors Research *Faculty*

Content as in BIO-481, but offered in the spring term and open only to candidates for departmental honors. This continuation of BIO-491 fulfills the capstone, oral and writing requirements within the major. Prerequisites: junior or senior standing, written consent of a faculty member who will serve as research adviser. *Four semester hours.*

Business and Economics

Professors Bowers (Executive-in-Residence), Economopoulos, (Chair), O'Neill; Associate Professors Cirka, Harris; Assistant Professors Mudd, Randall, VanGilder; Lecturer Brown.

In our rapidly changing global environment, students majoring in Business and Economics receive a broad understanding in the organizational structure of business and the dynamic forces of the economy within the global community. Our integrated curriculum offers students the opportunity to explore the interconnectedness between business decision-making, human relations, and market forces. Students become creative and thoughtful innovators by exploring and applying new business and economic paradigms. Our curriculum, along with the mentoring provided to students by our faculty, will equip future leaders in the areas of accounting, finance, management, economic and business research, government or international affairs.

Requirements for Major

All students majoring in the department must complete a minimum of 44 semester hours in Business and Economics as outlined below. In addition, majors must take either Math 105 or 111, or Math 107 and 108. (Students who have completed one year of high school calculus can request a waiver of the calculus requirement in the major.)

Required Courses

BE-100, BE-140, BE-211, BE-220, BE-230, BE-270 and BE-320.

Elective Requirements

All students must take 3 additional electives at the 200 level or higher, one of which must be at the 300 level. Students may take BE-391 (Independent Study) as elective credit for the major. BE-110, BE/ESS-273, BE-381 (Internship) and BE-499W may not count as elective credit for the major.

Capstone

All students must complete a capstone experience in one of the following courses: BE-411W, BE-412W, BE-413W, BE-430W, BE-461W, BE-462W, BE-463W, BE-471W, or qualified students may substitute BE-491 and BE-492W for the capstone requirement. Note: students receiving credit for BE-311, BE-312, BE-313, BE-361, BE-362 or BE-363 may not receive credit for the concurrently offered capstone, BE-411W, BE-412W, BE-413W, BE-461W, BE-462W or BE-463W, respectively.

Requirements for Minor Elective Requirements:

All students must take 3 additional electives at the 200 level or higher, one of which must be at the 300 level.

Students may take BE-391 (Independent Study) as elective credit for the major. BE/ESS-273, BE-381 (Internship) and BE-499W may not count as elective credit for the major.

Requirements for Minor in Accounting

A minor concentration in accounting consists of 20 credits: BE-100, 140, 240, and two electives chosen from 241, 242, or 340.

Requirements for Minor in Economics

A minor concentration in economics consists of 24 credits: BE-100, 140, 211, 212, 220 and Math 105 or 111, or Math 107 and 108.

Requirements for Minor in Finance

A minor concentration in finance consists of 20 credits: BE-100, 140, 270 and two from BE-362, 370, or 372.

Requirements for Minor in International Business

A minor concentration in international business consists of 20 credits: BE-100, 140, 211 or 212, 260, 361 or 362 or 363. Students are strongly encouraged to take advanced coursework in one of the Modern Languages.

Requirements for Minor in Management

A minor in management consists of 20 credits: BE-100, 140, 230, and two from BE/MCS-331, PSYC-365, BE-260, 330, or 334.

Note: Students majoring in Business and Economics may not elect minors in the department.

Note: Courses in economics, business and accounting in the Ursinus Center for Continuous Learning may have different prerequisites and coverage from those in the department of Business and Economics. Thus, courses in the Center for Continuous Learning may be used for credit toward the major in Business and Economics only with the prior written permission of the department chair.

Special Career Interests

Accounting: Students interested in pursuing a career in accounting are encouraged to choose from the following electives: BE-240, BE-241, BE-242, BE-340.

Management: Students interested in pursuing a career in management or marketing are encouraged to choose from the following electives: BE-260, 330, 333, 380, 382 or BE/MCS-331.

Public Policy in Economics: Students interested in pursuing a career in economics are encouraged to choose from the following electives: BE-212, BE/ENV-213, BE-311, BE-312, BE-313, BE-361, BE-363

Finance: Students interested in pursuing a career in finance are encouraged to choose from the following electives: : BE-240, 270, 362, 370, or 372.

International Business: Students interested in pursuing a career in international business are encouraged to choose from the following electives from the department: BE-212, 260, BE-361, BE-362, BE-363, BE-380 and Politics 242 or Politics 252 or History 207. Students are strongly encouraged to take advanced coursework in one of the Modern Languages.

Secondary School Teaching Certification

This program satisfies the Pennsylvania State requirements for secondary certification in social studies. Substantial further coursework outside of economics and education is required in order to prepare the student for subjects taught in the secondary curriculum. Students who wish teaching certification should consult their departmental adviser and the chair of the department of education as early as possible, preferably at the end of the freshman year. Students and their advisers should consult the education department.

BE-100. The Global Economy *Dr. Economopoulos, Dr. O'Neill, Dr. Mudd, Dr. VanGilder*

An introduction to why nations trade, the extent of that trade and how trade affects nations. An overview of demand and supply is given with special emphasis on macroeconomic policy, income inequality, the environment and culture. In addition, an examination of how exchange rates, foreign direct investment and labor migration affect economies. Four hours per week. *Four semester hours. (SS.)*

BE-110. Race and Gender in the American Economy *Dr. VanGilder*

The study of the issues of race and gender in the U.S. economy. We will evaluate the economic status of racial minorities and women. Issues include occupational segregation, wage differentials, educational attainment, affirmative action and labor market discrimination. Three hours per week. *Four semester hours. (SS, D.)*

BE-140. Financial Accounting *Prof. Harris*

An introduction to fundamental concepts, standards and problems underlying financial reporting of accounting information in the income statement, balance sheet and statement of cash flows. Spreadsheet applications of

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accounting problems. Three hours of lecture; two hours of computer laboratory per week. *Four semester hours.*

Note: BE-140 does not meet the College Core requirement as a social science.

BE-211. Managerial Economics *Dr. O'Neill, Dr. VanGilder, Dr. Mudd*

The study of the economic behavior of consumers, firms and managers. Optimal resource usage for corporations, not-for-profit organizations and government agencies is discussed. Topics also include market analysis, pricing decisions, forecasting and risk analysis. Prerequisites: BE-100, 140. Math 105 or 111, or Math 107 and 108. Three hours of lecture; two hours of laboratory per week. *Four semester hours. (SS.)*

BE-212. Intermediate Macroeconomic Theory *Dr. Economopoulos, Dr. O'Neill*

The study of inflation, unemployment and economic growth within the context of the world economy. An examination of how exchange rates, taxes and Federal Reserve policies affect business and the performance of the U.S. economy. Business forecasting based on macroeconomic indicators is discussed. Prerequisite: BE-100. Three hours per week. *Four semester hours. (SS.)*

BE/ENV-213. Economics of Environment and Natural Resources *Dr. VanGilder, Dr. Randall*

Economic analysis is used to inform, analyze, evaluate current environmental and natural resource policy decisions. Analyses of environmental problems use cost-benefit or efficiency criteria. Topics include externalities, public goods, common property rights, and sustainability. Prerequisite: BE-100. Three hours per week. *Four semester hours. (SS.)*

BE-220. Business Statistics *Prof. Harris, Dr. O'Neill, Dr. VanGilder*

An introduction to the collection, presentation and analysis of quantitative data in business and economic settings. An overview of measures of central tendency, deviations, correlation and simple regression. Introduction to SAS statistical software programming, data sources and data manipulation. Prerequisites: BE-100, 140. Three hours per week. *Four semester hours. (SS.)*

BE-230. Management and Organizational Behavior *Dr. Cirka, Prof. Bowers, Prof. Brown*

The study of theories and practices in the fields of management and organizational behavior. Focus is on understanding how organizations function in a global business environment. Integrates the study of the behavioral sciences as a framework for understanding individual and collective behavior with study of the essential management function of planning, organizing, leading and controlling. Prerequisites: BE-100 and sophomore standing. Four hours per week. *Four semester hours. (SS.)*

BE-240. Advanced Financial Reporting *Prof. Harris*

An in-depth study of financial statement reports and disclosures, including their impact on decisions by managers, investors and creditors. Emphasis is on accounting for debt and equity financing, cash flows, and coverage of selected topics related to operating and investing activities. Prerequisites: BE-100, 140. Three hours per week. *Four semester hours. (SS.)*

BE-241. Managerial Accounting *Prof. Harris*

An analysis of accounting data used by management in planning and controlling business activities. Emphasis is on basic concepts of product costing, cost measurement systems, budgets and variances, and managerial decision-making. Prerequisites: BE-100, 140. Three hours per week. *Four semester hours. (SS.)*

BE-242. Federal Income Tax Topics *Faculty*

An introduction to the federal income tax code, with focus on tax principles, policies and preparation for individuals and business entities. Prerequisite: BE-100, 140. Three hours per week. *Four semester hours. (SS.)*

BE-260. International Business *Dr. Cirka, Prof. Bowers, Prof. Brown*

The study of firms operating across borders and how the domestic, foreign, and international environments affect all functional and strategic managerial decisions. Topics include economic theories of international business, the international monetary system, and the influence of economic, political, legal, cultural, and labor forces on the international firm. Implications on marketing, human resource management, financial management, organization design and control are discussed. Prerequisite: BE-100. Three hours per week. *Four semester hours. (SS.)*

BE-270. Introduction to Financial Markets *Dr. Economopoulos, Prof. Harris, Dr. Randall*

The study of financial securities—their markets, risk, returns, and valuation. The theory of interest rate

determination is covered and an overview of the use of securities within private and public institutions is examined. Prerequisite: BE-100,140. Three hours per week. *Four semester hours. (SS.)*

BE/ESS-273. The Economics and Business of Sports *Dr. O'Neill*

The study of introductory economics and business using topics in sports and sports business. Professional, amateur, college and recreational sports will be analyzed. Prerequisites: Sophomore standing. Three hours per week. *Four semester hours. (SS.)*

Note: Students who have received credit for BE-211 may not enroll in BE/ESS-273.

BE-311. Health Economics *Dr. O'Neill*

Discussion of various topics including the supply and demand of health care, health professionals' services, facilities and pharmaceuticals. Government policies concerning Medicare and Medicaid are analyzed. International comparisons of health care delivery systems are discussed. Prerequisite: BE-211, 220 or permission of instructor. Three hours per week. *Four semester hours. (SS.)*

BE-312. Labor Economics *Dr. VanGilder*

A theoretical and empirical study of the functioning of labor markets, with emphasis on employment and compensation determination as affected by worker and firm characteristics, public policy, and worker organizations. Prerequisite: BE-211. Three hours per week. *Four semester hours. (SS.)*

BE-313. Topics in Economics and Public Policy *Dr. Economopoulos, Dr. O'Neill, Dr. VanGilder*

Contemporary issues are discussed using a cross-disciplinary approach. Microeconomic and macroeconomic analyses are undertaken within a historical context. Prerequisites: BE-211, 212, or permission of instructor. Three hours per week. *Four semester hours. (SS.)*

BE-320Q. Econometrics *Dr. Economopoulos, Dr. O'Neill*

Econometric methods used in analyzing business and economic data, including hypothesis testing, trend analysis, and forecasting of behavioral decisions by consumers and firms. Topics include the specification, estimation and verification of multiple regression and time series models. Laboratory experience includes SAS statistical software usage. A research paper presenting original data analysis is required. Prerequisites: BE-220, BE-211, and a grade of C- or better in BE-220.. Three hours of lecture; two hours of laboratory per week. *Four semester hours. (SS.)*

BE-330. Human Resource Management *Dr. Cirka*

The strategic importance of effectively managing human resources to achieve competitive advantage. Multiple views of the employment relationship are considered: the employer and employee view, as well as other stakeholders. Topics include human resource strategy and essential policies and procedures related to work design, staffing, performance management, career planning and compensation. Prerequisite: BE-230. Three hours per week. *Four semester hours. (SS.)*

BE/MCS-331. Critical Analysis of Organizational Communication *Dr. Goodman*

This course focuses on the study of talk in and about organizations, including an examination of communication theories of management, organizational codependency, organizational culture, power, and emotional labor. Students will be expected to conduct field research on an organization using a variety of methods. Three hours per week. *Four semester hours. (SS.)*

BE-333. Topics in Business *Prof. Bowers, Prof. Brown*

Contemporary issues are discussed such as social responsibility, issues in the workplace, diversity and business decisions, the legal environment. Prerequisites: BE-100, sophomore standing, or permission of the instructor. Three hours per week. *Four semester hours. (SS.)*

BE-334. Organizational Leadership *Prof. Bowers*

A seminar course on the nature, theory, and exercise of leadership in organizational settings. Through readings and discussion, the student will explore and grow to understand leaders and the practice of leadership in a wide variety of contexts, including industry, politics, the military and non-profit institutions. The course provides a mix of organizational leadership theory, experiential exercises, and practical experience, and draws from the professional, business, and popular literature. Prerequisite: BE-230 or permission of instructor, junior standing. Three hours per week. *Four semester hours. (SS.)*

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BE-340. Auditing *Prof. Harris*

An introduction to the audit process through analysis of objectives, concepts, and procedures underlying the review of financial reports prepared by businesses. Emphasis is placed on the analysis of internal controls and the auditor's professional, ethical and legal responsibility. Prerequisites: BE-240, 241. Three hours per week. *Four semester hours. (SS.)*

BE-361. International Trade Theory and Policy *Dr. O'Neill, Dr. Mudd*

An analysis of world trade using the classical, neoclassical and modern theories of trade. Extensive commercial policy analysis concerning the use of tariffs, quotas, voluntary restraints and non-tariff barriers. Ongoing discussion analyzing current trade problems, prescriptions and legislation. Prerequisites: BE-211, 220 or permission of instructor. Three hours per week. *Four semester hours. (SS.)*

BE-362. International Finance Theory and Policy *Dr. O'Neill, Dr. Mudd*

An examination of balance-of-payments theory using fixed and flexible exchange rate regimes. Analysis of the effects of fiscal and monetary policies given alternative presumptions concerning capital mobility, expectations formation and international policy coordination. Systematic analysis of current international financial policies. Prerequisite: BE-212. Three hours per week. *Four semester hours. (SS.)*

BE-363. Transitional Economies *Dr. Economopoulos, Dr. Mudd*

The interpretation and understanding of the economic, cultural, and political issues that result from the transformation of their political and economic systems. The nature and institutional structure of their economic and political systems will be examined. Case studies of Eastern European and developing countries will be used. Prerequisites: BE-211 or 212 or permission of instructor. Three hours per week. *Four semester hours. (SS, G.)*

BE-370. Corporate Finance *Dr. Economopoulos, Dr. Mudd, Dr. Randall*

A study of the basic principles underlying the financing of the corporate structure. Short- and long-term financing instruments. Expansion, failure, and reorganization of the corporation. Case studies and/or semester project utilizing financial analysis and forecasting techniques. Proficiency in spreadsheet analysis is required. Prerequisites: BE-220, 270. Three hours per week. *Four semester hours. (SS.)*

BE-372. Investments *Dr. Economopoulos, Dr. Randall*

An investigation of the concepts of security analysis and valuation and of the fundamentals of market analysis. Special attention will be paid to securities and security markets, risk-return characteristics of investment types, and investment strategies including the use of convertible securities and options. Prerequisites: BE-220, BE-270. Three hours per week. *Four semester hours. (SS.)*

BE-380. Marketing *Dr. Cirka, Prof. Bowers, Prof. Brown*

The study of market analysis, consumer behavior and the four components of the marketing mix—product, price, promotion and distribution. Marketing issues will be examined through case studies and projects utilizing marketing research and analytical techniques. Proficiency in spreadsheet analysis is required. Prerequisite: BE-211. Three hours per week. *Four semester hours. (SS.)*

BE-381. Internship *Faculty*

An off-campus academic/work experience under the supervision of a faculty internship adviser and an on-site supervisor. Students are required to document their experiences in a written journal. A written research paper/project is required. Contact the chair of the department for further details. Prerequisites: Four courses in the major and prior written approval of a faculty internship adviser. Eight to 10 hours per week. Graded S/U. *Four semester hours. (I.)*

BE-389. Marketing Research *Faculty*

Focuses on fundamental issues in research design and analysis: problem formulation, data collection, sample selection, data analysis and interpretation. Topics include the economic aspects of pricing strategies, advertising, inter and intra market rivalries, entry and barriers to new markets, and regulations. A marketing research paper is required. Prerequisites: BE-220, 380. Three hours per week. *Four semester hours. (SS.)*

BE-391. Independent Research *Faculty*

Preparation of an independent research paper. Prerequisites: junior or senior standing, completed departmental core requirements, and permission of department chair. *Four semester hours. (SS, L)*

BE-411W. Health Economics Capstone *Dr. O'Neill*

Discussion of various topics including the supply and demand of health care, health professionals' services, facilities and pharmaceuticals. Government policies concerning Medicare and Medicaid are analyzed. International comparisons of health care delivery systems are discussed. Course will incorporate the development and exploration of a student-selected, independent research topic, culminating in a paper and poster presentation. Prerequisites: Department core requirements. BE-411W is offered concurrently with BE-311. Students receiving credit for BE-311 may not enroll in BE-411W. Three hours per week. *Four semester hours. (SS.)*

BE-412W. Labor Economics Capstone *Dr. VanGilder*

A theoretical and empirical study of the functioning of labor markets, with emphasis on employment and compensation determination as affected by worker and firm characteristics, public policy, and worker organizations. Course will incorporate the development and exploration of a student-selected, independent research topic, culminating in a paper and poster presentation. Prerequisites: Department core requirements. BE-412W is offered concurrently with BE-312. Students receiving credit for BE-312 may not enroll in BE-412W. Three hours per week. *Four semester hours. (SS.)*

BE-413W. Topics in Economics and Public Policy Capstone *Faculty*

Contemporary issues are discussed using a cross-disciplinary approach. Microeconomics and macroeconomic analyses are undertaken within a historical context. Course will incorporate the development and exploration of a student-selected, independent research topic, culminating in a paper and poster presentation. Prerequisites: Department core requirements. BE-413W is offered concurrently with BE-313. Students receiving credit for BE-313 may not enroll in BE-413W. Three hours per week. *Four semester hours. (SS.)*

BE-430W. Business Strategy Capstone *Prof. Bowers, Dr. Cirka*

A case-oriented course taught from the perspective of the firm's top management team as they seek to achieve competitive advantage in an increasingly knowledge-intensive business world. Theories of strategic management and their practical application through case exercises enable students to integrate their prior disciplinary work in the business and economics major. Course will incorporate the development and exploration of a student-selected, independent research topic, culminating in a paper and poster presentation. Prerequisites: Department core courses and BE 380. Three hours per week. *Four semester hours. (SS.)*

BE-461W. International Trade Theory and Policy Capstone *Dr. O'Neill, Dr. Mudd*

An analysis of world trade using the classical, neoclassical and modern theories of trade. Extensive commercial policy analysis concerning the use of tariffs, quota, voluntary restraints and non-tariff barriers. Ongoing discussion analyzing current trade problems, prescriptions and legislation. Course will incorporate the development and exploration of a student-selected, independent research topic, culminating in a paper and poster presentation. Prerequisites: Department core requirements. BE-461W is offered concurrently with BE-361. Students receiving credit for BE-361 may not enroll in BE-461W. Three hours per week. *Four semester hours. (SS.)*

BE-462W. International Finance Theory and Policy Capstone *Dr. O'Neill, Dr. Mudd*

An examination of balance-of-payments theory using fixed and flexible exchange rate regimes. Analysis of the effects of fiscal and monetary policies given alternative presumptions concerning capital mobility, expectations formation and International policy coordination. Systematic analysis of current international financial policies. Course will incorporate the development and exploration of a student-selected independent research topic, culminating in a paper and poster presentation. Prerequisites: Department core requirements and BE-212. BE-462W is offered concurrently with BE-362. Students receiving credit for BE-362 may not enroll in BE-462W. Three hours per week. *Four semester hours. (SS.)*

BE-463W. Transitional Economies Capstone *Dr. Economopoulos, Dr. Mudd*

The interpretation and understanding of the economic, cultural, and political issues that result from the transformation of their political and economic systems. The nature and institutional structure of their economic and political systems will be examined. Case studies of Eastern European and developing countries

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will be used. Course will incorporate the development and exploration of a student-selected independent research topic, culminating in a paper and poster presentation. Prerequisites: Department core requirements. BE-463W is offered concurrently with BE-363. Students receiving credit for BE-363 may not enroll in BE-463W. Three hours per week. *Four semester hours. (SS.)*

BE-471W. Managerial Finance Capstone *Prof. Harris, Dr. Randall, Dr. Economopoulos*

Integration of accounting, finance and microeconomic theory with applications to financial planning decisions of business managers. The examination of short-term and long-term financial decisions, including management and analysis of cash, receivables, inventory, sources of financing, and debt-equity decisions. Development and exploration of a student-selected, independent research topic, culminating in a paper and poster presentation. Prerequisites: Departmental core requirements and BE-240 or BE 241. Three hours per week. *Four semester hours. (SS.)*

BE-490W. Seminar in Business and Economics *Faculty*

Readings and individual research on topics in business and economics, leading to preparation, oral presentation, and discussion of research papers. Prerequisites: departmental core requirements. Three hours per week. *Four semester hours. (SS.)*

BE-491. Research/Independent Work *Faculty*

Preparation of an independent research paper. Open only to candidates for departmental honors or to fourth-year majors with the permission of the department chair. *Four semester hours. (I.)*

BE-492W. Research/Independent Work *Faculty*

A continuation of BE-491. Prerequisite: BE-491. *Four semester hours. (I.)*

Note: The completion of BE-491 and 492W satisfies the capstone requirement (BE-490W).

BE-499W. Advanced Seminar in Business and Economics *Faculty*

Extension of individual research on topics in business and economics completed in BE-490W requiring econometric analysis of relevant data. Expanded research paper and oral presentation required. Prerequisites: BE-490W and department approval. Three hours per week. *Four semester hours. (SS.)*

Chemistry

Professors Hess (Chair), Levy, Tortorelli; Associate Professor Williamsen;

Assistant Professors Ellison, Mowery, Popescu, Laboratory Coordinator Pfennig.

The chemistry department at Ursinus College has been approved by the American Chemical Society since 1959. The objectives of the department are (1) to offer specialized training in chemistry, beyond the basic course, that will enable a graduate to enter a career as a professional chemist; (2) to prepare the student for graduate study; (3) to provide a strong foundation for the student planning to enter medicine, dentistry, or an allied health field; (4) to prepare the student for teaching chemistry at the secondary level; (5) to provide courses which satisfy the departmental requirements for a comprehensive minor; and (6) to provide a course in general chemistry which satisfies the natural science requirements of the College.

Recognizing that students have different educational objectives, the chemistry department offers several programs leading to a major. Students wishing to combine a chemistry major with a major/minor concentration in another academic department may enroll in any one of the following programs (tracks) in accordance with their career interests.

Requirements for Majors

Regardless of track, all majors must complete the following courses: Chemistry 105/105LQ (or 151/151LQ in place of 105/105LQ and 206/206L), 106/106L, 201W, 205/205L, 206/206L, 212, 309/309L, 310/310L, 315/315L, and 322/322L; Math 112; and Physics 111Q/112.

Track 1. Major Specialization in Chemistry

Students planning to enter the chemical industry or planning further study in chemistry or chemically related areas (e.g. engineering, biochemistry, material science, and the like) may enroll in this program. In addition to the courses required of all majors, this specialization requires one of 405W, 409W, 415W, 422W, or 424W.

Track 2. American Chemical Society Certified Major — Chemistry Emphasis

The American Chemical Society has adopted a set of standards for undergraduate training in chemistry. In addition to the courses required of all majors, students seeking certification must complete the following courses: Chemistry 380 or 381 or 491W, and at least two of 405W, 409W, 415W, 422W, or 424W.

Track 3. Specialization in Chemistry for Medical School and Allied Fields

This course of study is designed for students planning admission to graduate programs in biochemistry, toxicology, pharmacology, etc., and to professional schools in the healing arts (such as medicine and dentistry) or further study in the health-related fields. In addition to the courses required of all majors, this program consists of the following courses: Chemistry 424W or BCMB 351; Biology 101Q and 102Q.

Track 4. Specialization in Chemistry for Science Teaching

This program satisfies the requirements for secondary school certification in chemistry as established by the Commonwealth of Pennsylvania. In addition to the courses required of all majors, students seeking certification should complete one of 405W, 409W, 415W, 422W, or 424W. Prospective teachers should serve as laboratory assistants or participate in safety training. Prospective student teachers must have a 2.50 average in chemistry and receive a departmental recommendation which considers, in addition to academic performance, the student's interpersonal and communication skills. Students and their advisers should consult the Ursinus College Education Department.

The following courses satisfy the college capstone, oral, and writing requirements for the major: 405W, 409W, 415W, 422W, and 424W.

Requirements for Minors

A minor concentration in chemistry consists of Chemistry 105/105LQ (or 151/151LQ in place of 105/105LQ and 206/206L), 106/106L, 205/205L, 206/206L, 309/309L or 315/315L or 322/322L, and three additional credits in chemistry.

CHEM-100Q. Topics in Chemistry *Faculty*

A study of the essential nature of chemistry, emphasizing basic chemical principles and applications. Topics may include atomic structure, bonding, the production and utilization of energy, and oxidation-reduction. Societal and historical perspectives are introduced by way of assignments from the popular literature. A knowledge of algebra is assumed. Three hours of lecture and three hours of laboratory per week. *Four semester hours. (L.S.)*

Note: A student who has received credit for CHEM-105 may not enroll in CHEM-100Q. CHEM-100Q may not be used as elective credits for chemistry majors or minors.

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CHEM-101. Introduction to Environmental Chemistry *Faculty*

This course, intended for non-science majors, will examine selected topics in environmental chemistry through an understanding of basic chemical principles. Topics may include global warming, ozone depletion, pollution, and waste management. Three hours of lecture. *Three semester hours. (LS, if taken with CHEM-101LQ.)*

CHEM-101LQ. Laboratory in Introductory Environmental Chemistry *Faculty*

Laboratory work related to CHEM-101. In addition to mastering basic chemistry laboratory skills, students will analyze air, water, and soil samples using a variety of techniques. Prerequisite: CHEM-101 (or concurrently). Three hours of laboratory per week. *One semester hour.*

CHEM-102. Introduction to Forensic Chemistry *Dr. Tortorelli*

This course, intended for non-science majors, will examine selected topics in forensic science. Through an understanding of basic chemical principles, this course will investigate the role of science in solving crimes. Topics may include fingerprint analysis, fiber identification, blood typing and analysis, drug identification, and DNA profiling. Case studies will be used to explore the scientific foundation for the examination of physical, chemical, and biological evidence. Three hours of lecture. *Three semester hours. (LS, if taken with CHEM-102LQ.)*

Note: A student who has received credit for CHEM-105 may not enroll in CHEM-102. CHEM-102 may not be used as elective credits for chemistry majors or minors.

CHEM-102LQ. Laboratory in Forensic Chemistry *Dr. Tortorelli*

Laboratory work related to CHEM-102. This laboratory course will involve the analysis of trace evidence. Techniques utilized may include chromatography, fingerprinting, blood typing, fiber identification, glass analysis, mass spectrometry, and infrared spectroscopy. Students will work in investigative teams. Prerequisite: CHEM-102 (or concurrently). Three hours of laboratory per week. *One semester hour.*

CHEM-105. General Chemistry I *Faculty*

A study of the principles of chemistry. Topics include structure, bonding, stoichiometry, states of matter, inorganic reactions, thermochemistry, and solutions. The mathematical solution of chemical problems will be emphasized. This course must be taken concurrently with CHEM-105LQ.* Three hours of lecture per week plus one hour of recitation per week at the discretion of the instructor. *Three semester hours. (LS, if taken with CHEM-105LQ.)*

**A student who repeats this need not also repeat its companion lecture or lab.*

CHEM-105LQ. Laboratory in General Chemistry I *Dr. Pfennig*

Laboratory work related to CHEM-105. Experimental work may include verification of the stoichiometric relationship between reactants and products, the preparation and characterization of compounds, titrations involving neutralization and redox reactions, measurement of enthalpies of reaction, and colorimetric analysis. The mathematical solution of chemical problems will be emphasized. This course must be taken concurrently with CHEM-105.* Three hours per week. *One semester hour.*

**A student who repeats this need not also repeat its companion lecture or lab.*

CHEM-106. Organic Chemistry I *Dr. Hess, Dr. Tortorelli*

An introduction to the study of the physical and chemical properties of both aliphatic and aromatic hydrocarbons within the context of modern structural theory. Areas emphasized are bonding, acidity and basicity in organic systems, stereochemistry, and reaction mechanisms. This course must be taken concurrently with CHEM-106L.* Prerequisite: CHEM-105 or 151. Three hours per week. *Three semester hours. (LS, if taken with 106L.)*

**A student who repeats this need not also repeat its companion lecture or lab.*

CHEM-106L. Laboratory in Organic Chemistry I *Dr. Hess, Dr. Tortorelli*

Laboratory work related to CHEM-106. Experimental work may include measurement of physical properties, study of reaction kinetics, and synthesis. Techniques employed include chromatography, distillation, extraction, infrared and UV/vis spectroscopy, and recrystallization. Primary and secondary literature sources are introduced. This course must be taken concurrently with CHEM-106.* Prerequisite: CHEM-105LQ or 151LQ. Three hours per week. *One semester hour.*

**A student who repeats this need not also repeat its companion lecture or lab.*

CHEM-151. Advanced General Chemistry Faculty

A course in the foundations of chemistry and analysis of chemical systems designed for students with a strong background in chemistry. Topics in atomic structure, bonding, thermodynamics, equilibria and kinetics will be discussed in detail. The course will emphasize the integration of these topics with other areas of chemistry, having an outlook toward upper-level chemistry courses. This course must be taken concurrently with CHEM-151LQ.* Placement in this course is by invitation of the Chemistry Department. Three hours of lecture per week plus one hour of recitation per week at the discretion of the instructor. *Three semester hours. (LS, if taken with CHEM-151LQ)*

Note: Students who have received credit for CHEM-105 and/or CHEM-206 may not enroll in CHEM-151.

CHEM-151LQ. Laboratory in Advanced General Chemistry Faculty

Laboratory work related to CHEM-151. Experimental work may include topics in stoichiometry, chemical structure and bonding, thermodynamics, equilibrium, and kinetics. This course must be taken concurrently with CHEM-151. Three hours of laboratory per week. *One semester hour.**

CHEM-201W. Effective Communication for Chemists Faculty

Practice in various forms of technical writing and oral communication, commonly used by chemists. Topics will include writing the scientific paper, display of experimental data, and effective presentation skills. Course work will involve bibliographic instruction and the use of primary sources. Open only to chemistry majors. Pre- or co-requisites: CHEM-205. Three hours per week. *Four semester hours.*

CHEM-205. Organic Chemistry II Dr. Hess, Dr. Tortorelli

A continuation of CHEM-106. Particular emphasis is placed on spectrometric methods, and on the reactivity and synthesis of a variety of organic functional groups. This course must be taken concurrently with CHEM-205L.* Prerequisite: CHEM-106. Three hours per week. *Three semester hours.*

CHEM-205L. Laboratory in Organic Chemistry II Dr. Hess, Dr. Tortorelli

Laboratory work related to CHEM-205; a continuation of 106L. This course must be taken concurrently with CHEM-205.* Prerequisite: CHEM-106L. Three hours per week. *One semester hour.*

CHEM-206. General Chemistry II Faculty, Dr. Ellison, Dr. Pfennig, Dr. Popescu, Dr. Williamson

A study of properties of solutions, kinetics, equilibria, and acid-base chemistry, thermodynamics, electrochemistry, and nuclear chemistry. This course must be taken concurrently with CHEM-206L.* Prerequisite: CHEM-105. Three hours per week. *Three semester hours.*

Note: Students who have received credit for CHEM-151 may not enroll in CHEM-206.

CHEM-206L. Laboratory in General Chemistry II Dr. Pfennig

Laboratory work related to CHEM-206. Special emphasis will be placed on sample manipulation, control of solution characteristics, quantitative analysis, and the development of skills in wet and instrumental analysis methods. This course must be taken concurrently with CHEM-206.* Prerequisite: CHEM-105LQ. Three hours per week. *One semester hour.*

CHEM-212. Structure and Spectroscopy Faculty

A study of the fundamental aspects of the various forms of spectroscopy through the structural examination of a variety of organic and inorganic compounds, either produced by students or obtained from other researchers. The course will emphasize major spectroscopic techniques, such as NMR, IR, MS, and UV-vis. In-depth analysis of the spectra and their relation to structure determination will be emphasized. Prerequisites: CHEM-205 and either 151 or 206 (or concurrently). Four hours of lecture/laboratory per week. *Three semester hours.*

CHEM-291. Introduction to Research Faculty

Laboratory and library work, under the direction of a faculty member, designed to introduce the student to fundamental research procedures and data interpretation in the context of a research project. Upon completion of the work, a formal presentation must be given to the department. This course may be taken more than once. Prerequisites: CHEM-105LQ or 151LQ and permission of the research adviser. Three hours of laboratory per week. *One semester hour.*

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CHEM-309. Physical Chemistry I *Dr. Ellison, Dr. Popescu*

An in-depth study of chemical thermodynamics and kinetics, including enthalpy, entropy, and Gibbs energy changes; physical and chemical equilibria; rates of chemical reactions; and reaction mechanisms. Prerequisites: CHEM-151 or 206; MATH-112; PHYS-112. Strongly recommended: MATH-211. Three hours per week. *Three semester hours.*

Note: Students may not receive credit for both CHEM-309 and BCMB-307.

CHEM-309L. Laboratory in Physical Chemistry I *Dr. Ellison, Dr. Popescu*

Laboratory work related to BCMB-307 and CHEM-309, emphasizing data analysis, computer and writing skills. Lab report writing will require use of the primary and secondary literature sources. Prerequisites: CHEM-151LQ or 206L; BCMB-307 (or concurrently) or CHEM-309 (or concurrently). Three hours per week. *One semester hour.*

CHEM-310. Physical Chemistry II *Dr. Ellison, Dr. Popescu*

A study of the principles of quantum mechanics applied to simple models (particle in the box, harmonic oscillator) and to atoms and molecules (quantum chemistry). The course will include statistical thermodynamics. Emphasizes the mathematical foundation and spectroscopic investigation of atomic and molecular properties. Prerequisite: CHEM-151 or 206; MATH-112; PHYS-112. Strongly recommended: MATH-211. Three hours per week. *Three semester hours. (LS if taken with CHEM-310L.)*

CHEM-310L. Laboratory in Physical Chemistry II *Dr. Ellison, Dr. Popescu*

Laboratory work related to CHEM-310, emphasizing spectroscopic methods of investigating atomic and molecular structure and properties. Data analysis and lab report writing will require the use of the chemical literature. Prerequisites: CHEM-151LQ or 206L; 310 (or concurrently). Three hours per week. *One semester hour.*

CHEM-315. Instrumental Analysis *Dr. Williamsen*

A study of instrument-based spectroscopic, separation, and electrochemical analyses. A framework that can be used to understand new and old techniques, the theory behind a variety of specific techniques, and the current practices used in chemical analysis will be discussed. In addition to the discussion of specific techniques, basic concepts in electronics and statistics will be presented. Prerequisite: either CHEM-151 or 206. Three hours per week. *Three semester hours.*

CHEM-315L. Laboratory in Advanced Instrumental Analysis *Dr. Williamsen*

Laboratory work related to CHEM-315. Students will gain experience with a variety of instrumental analysis techniques by investigating how specific instrumental settings affect output. Emphasis will be placed on statistical analysis of experimental data. This course must be taken concurrently with CHEM-315. Three hours per week. *One semester hour.*

CHEM-322. Inorganic Chemistry *Dr. Pfennig*

A systematic survey of the descriptive chemistry of the main group elements with an emphasis on periodicity, nomenclature, structure, and reactivity. An introduction to the chemistry of the transition metals as well as group theory and symmetry will also be discussed. Prerequisite: either CHEM-151 or 206, and 212 (or concurrently). Three hours per week. *Three semester hours.*

CHEM-322L. Laboratory in Inorganic Chemistry *Dr. Pfennig*

Laboratory work related to CHEM-322. Techniques used to synthesize and characterize a variety of inorganic compounds will be introduced. This course must be taken concurrently with CHEM-322. Three hours per week. *One semester hour.*

CHEM-350. Selected Topics in Chemistry *Faculty*

A course focused on a topic of contemporary interest to the chemical community, such as advanced organic chemistry, nuclear magnetic resonance, medicinal chemistry, materials science, ethical issues in science, or synthesis. Prerequisites: CHEM-205 and 206, and permission of the instructor. Three hours per week. *Three semester hours.*

CHEM-380. Off-Campus Research *Faculty*

An approved, off-campus laboratory research experience supervised by an on-site adviser and faculty liaison involving a minimum of 10 hours per week for one semester or four weeks of full-time work. Before

beginning the project, the student must submit a proposal to be approved by both the chemistry faculty and the on-site adviser. Upon completion of the work, written and oral reports must be presented to the department. Prerequisites: CHEM-205L and either 151LQ or 206L. Graded S/U. *Three semester hours. (I.)*

CHEM-381. Internship *Faculty*

A laboratory project in cooperation with industry at an industrial site involving a minimum of 10 hours per week for one semester or four weeks of full-time work. Before beginning the internship, the student must submit a proposal to be approved by both the chemistry faculty and the on-site supervisor. Upon completion of the work, written and oral reports must be presented to the department. Prerequisites: CHEM-205L and either 151LQ or 206L. Graded S/U. *Three semester hours. (I.)*

CHEM-391. Research/Focused Inquiry *Faculty*

Laboratory and library work, under the direction of a faculty member, designed to introduce the student to fundamental research procedures and data interpretation in the context of a research project. Upon completion of the work, a formal presentation must be given to the department. This course may be taken more than once. Prerequisites: CHEM-205L or 291, and permission of the research adviser. Six hours of laboratory per week. *Two semester hours.*

CHEM-405W. Advanced Organic Chemistry *Dr. Hess, Dr. Tortorelli*

A study of structure, reactivity, reaction mechanisms, and synthetic methodology in organic systems. Written and oral exercises are required, as well as a major paper. Offered spring of even-numbered years. Prerequisites: CHEM-205, and either 151 or 206. Three hours per week. *Three semester hours.*

CHEM-409W. Advanced Physical Chemistry *Dr. Ellison, Dr. Popescu*

A course that explores topics in physical chemistry in depth. Topics may include advanced methods in spectroscopy, reaction kinetics, molecular reaction dynamics, quantum mechanical calculations, and nanoscience. Written and oral exercises are required, as well as a major paper. Offered spring of odd-numbered years. Prerequisites: CHEM-309 and 310. Three hours per week. *Three semester hours.*

CHEM-415W. Advanced Analytical Chemistry *Dr. Williamsen*

A study of an application in analytical chemistry or a specific analytical technique. Written and oral exercises are required, as well as a major paper. Offered spring of even-numbered years. Prerequisite: CHEM-315. Three hours per week. *Three semester hours.*

CHEM-422W. Advanced Inorganic Chemistry *Dr. Pfennig*

A study of bonding theories, point groups, structure, stereochemistry, and reactivity of inorganic and organometallic materials with an emphasis on transition-metal compounds. Other topics include superconductivity, catalysis, and bioinorganic chemistry. Written and oral exercises are required, as well as a major paper. Offered fall of odd-numbered years. Prerequisites: CHEM-322. Three hours per week. *Three semester hours.*

CHEM-424W. Advanced Biological Chemistry *Faculty*

A detailed exploration of the structures, properties, and reactions of biological molecules, cycles, and systems. Written and oral exercises are required, as well as a major paper. Offered fall of even-numbered years. Prerequisites: CHEM-205 and either 151 or 206. Three hours per week. *Three semester hours.*

CHEM-491W. Research/Independent Work *Faculty*

Independent laboratory and library investigation in chemistry. A final research paper and oral presentation will be presented to the department faculty. At the time of registration, written consent of the research adviser and the department is required. Prerequisites (or concurrently): CHEM-201W. Twelve hours per week. *Four semester hours. (I.)*

CHEM-492W. Research/Independent Work *Faculty*

A continuation of CHEM-491W, with a final seminar and thesis describing the research work. Prerequisites: CHEM-491W. Twelve hours per week. *Four semester hours. (I.)*

Departmental Honors in Chemistry

Students successfully completing CHEM-491W and CHEM-492W may be awarded honors in chemistry, but no additional credit will be granted. Description of the honors program, including qualifications, is detailed in this catalog. *(I.)*

Classics

Professor Wickersham (Chair).

Courses in the department of classics are intended to develop reading ability in ancient Greek and Latin and to introduce the student to the major forms and themes of classical literature and culture. They enhance general linguistic facility and give the student direct access to the original documents and foundations of Western civilization.

Requirements for Majors

General Coursework: Majors must take at least 16 semester hours in Greek, and 16 semester hours in Latin above Latin 100. Majors must include among their electives eight semester hours in some other language and also elect at least 12 semester hours from the following major-related courses: CLAS/ENGL-230, CLAS-326/ENGL-226; English 214; Anthropology 100; Art 150, 160; Interdivisional Studies 101, 102. Other courses not mentioned may be counted as major-related with the approval of the department.

Oral Presentation: This requirement may be satisfied by a special assignment in any ordinary course in the department at the 300 or 400 level. When registering, the candidate shall announce his or her intention to fulfill this requirement in said course; this intention shall be recorded by a letter written by the candidate and placed in the candidate's file. The candidate shall consult with the instructor and arrange that one class-hour in the 12th week of the course be devoted to the oral presentation and discussion thereof. The presentation must be no less than 15 and no more than 20 minutes in length. The instructor shall evaluate the presentation with attention to content and delivery. The evaluation shall show whether or not the candidate has satisfied the requirement; the instructor shall record the result by writing a letter to be placed in the candidate's file, with a copy thereof to be given to the candidate.

Writing-Intensive Course: This requirement may be satisfied by the following courses: Greek 401W, 491W; Latin 401W, 491W. The 491W courses will be for those majors who have registered for departmental honors, and they will feature the development of secondary bibliography on the subject of the thesis. All of these writing-intensive courses will begin with a study of the invention and evolution of prose-style in antiquity, with modern parallels. They will then study examples of the forms of writing modernly practiced in classical studies: translations, brief reviews, longer reviews/discussions, short essays, commentaries, books. Attention in class will be directed towards structure, cogency, and style. Candidates will write original examples in these forms, the amount of formal writing to be no less than 10 pages in the final version. There will also be informal writing in the form of a journal, kept in a composition book to be filled up with daily entries, as well as in-class exercises. The formal writing will be shared with the class, and some of the informal writing as well.

Capstone Experience: This requirement may be fulfilled by the seminar courses for the Spring semester of the senior year: Greek 402, 492; Latin 402, 492. The 492 courses will be for those majors who are writing an honors thesis, 402 for others. In either case the candidate will be required to execute a substantial project which must combine a topic in Greek or Roman antiquity with the concerns of at least one other department of the College. Examples: ancient historiography, ancient science (biology, astronomy, physics, chemistry), current literary theory and ancient literature, classical archaeology, comparative linguistics. This approach creates a special

subject in the major while also integrating the major with the rest of liberal education. Those intending to teach Greek or Latin in the public schools are urged to acquire state certification through the department of education. Students and their advisers should consult the Ursinus College Education Department.

Requirements for Minors

A minor concentration in Greek consists of 16 credits in Greek and four credits in classics-in-translation (Classics 230, 326). A minor concentration in Latin consists of 16 credits in Latin, and four credits in classics-in-translation (Classics 321, 326).

Ancient texts used in the following two courses are in English translation.

CLAS/ENGL-230. *Epics of the World* Dr. Wickersham

Read in English translation, a specimen of Western epic, such as Homer's Iliad and Odyssey or Vergil's Aeneid, is compared with a specimen of non-Western epic, such as the Indian Mahabharata or the Persian Book of Kings. Prerequisite: CIE-100. Three hours per week. *Four semester hours.* (H, G.)

CLAS-326/ENGL-226. *Mythology* Dr. Wickersham

Illustrated lectures survey the tales of gods and heroes in Greek legend, from the creation of the world to the end of the age of myth—the foundations of Western literature. Interpretive approaches are also studied. Prerequisite: CIE-100. Three hours per week. *Four semester hours.* (H.)

Greek

GRK-101. *Elementary Greek* Dr. Wickersham

Thorough study of ancient Greek grammar and syntax. Practice in reading and composition. Emphasis on development of reading ability. Forms a unit with GRK-102. Four hours per week. *Four semester hours.* (H, L.)

GRK-102. *Elementary Greek* Dr. Wickersham

Continuation of Greek 101. Study of grammar completed and replaced by reading of a whole work, such as a play of Euripides, Xenophon's Anabasis I, or a book of the New Testament. Four hours per week. *Four semester hours.* (H, L.)

GRK-201. *Athens in the Late Fifth Century* Dr. Wickersham

In the twilight of the Golden Age, political and intellectual changes bring stress. A variety of readings related to the search for justice and the affair of Socrates. Four hours per week. *Four semester hours.* (H, L.)

GRK-202. *Hellenic Panorama* Dr. Wickersham

Greek has the longest recorded history of any living language. This course presents a variety of readings spanning the millennia from Homer to the present. Four hours per week. *Four semester hours.* (H, L.)

The following advanced courses will be given according to students' needs and interests; consult with the department concerning available offerings.

GRK-311. *The Epic* Dr. Wickersham

Large excerpts from the Iliad or Odyssey. Study of Homer's poetry and thought. Introduction to history of the Greek language, with special attention to phonology. Foundations of Western literature. Prerequisites: GRK-202 or equivalent. Three hours per week. *Four semester hours.* (H, L.)

GRK-313. *Historical Writers* Dr. Wickersham

Large excerpts from Herodotus' Persian Wars, Thucydides' Peloponnesian War, or Xenophon's Greek History. Three hours per week. *Four semester hours.* (H, L.)

GRK-314. *Drama* Dr. Wickersham

Reading and study of Sophocles' Oedipus the King, plus one other tragedy of Sophocles, Aeschylus, or Euripides, or a comedy by Aristophanes or Menander. Three hours per week. *Four semester hours.* (H, L.)

GRK-315. *New Testament* Dr. Wickersham

At least one book of this important record. Three hours per week. *Four semester hours.* (H, L.)

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GRK-317. Selected Topics *Dr. Wickersham*

Content variable, concentration on author, period, genre and the like. Three hours per week.
Four semester hours. (H, L.)

GRK-318. Selected Topics *Dr. Wickersham*

Three hours per week. *Four semester hours. (H, L.)*

GRK-401W. Seminar *Dr. Wickersham*

Seminars of varying content, concentrating on a topic, author or genre, combined with study and practice in writing. Three hours per week. *Four semester hours. (H, L.)*

GRK-402. Seminar *Dr. Wickersham*

Seminars of varying content, concentrating on a topic, author, or genre. Three hours per week. *Four semester hours. (H, L.)*

GRK-491W. Research/Independent Work *Faculty*

This course is open to candidates for departmental honors and to other students with the permission of the department chairman. Concentration in the topic of the honors thesis, with study and practice of writing.
Four semester hours. (I.)

GRK-492. Research/Independent Work *Faculty*

A continuation of Greek 491. Prerequisite: GRK-491. *Four semester hours. (I.)*

Latin

LAT-101. Elementary Latin *Dr. Wickersham*

Instant production of reading ability, with ever-growing development of vocabulary and style. Forms unit with Latin 102. Four hours per week. *Four semester hours. (H, L.)*

LAT-102. Elementary Latin *Dr. Wickersham*

Review of elementary Latin. Readings depict life in the High Empire. Four hours per week.
Four semester hours. (H, L.)

LAT-201. From Aeneas to Hannibal *Dr. Wickersham*

Readings present legends and history of Roman origins from the Trojan War through the first war with Carthage. Four hours per week. *Four semester hours. (H, L.)*

LAT-202. Rome: Triumph and Tragedy *Dr. Wickersham*

Readings from Livy, Sallust, Eutropius, Cicero: Rome gains the world while endangering its own soul. Four hours per week. *Four semester hours.* The sequences LAT-101-102 or 201-202 are recommended for fulfilling the foreign language requirement. *(H, L.)*

The following advanced courses will be given according to students' needs and interests; consult with the department concerning available offerings.

LAT-302. Introduction to Latin Poetry *Dr. Wickersham*

Poems of Catullus, Ovid, Tibullus, Propertius. Stress on developing sensitivity and canons of appreciation. Three hours per week. *Four semester hours. (H, L.)*

LAT-303. Historical Writers *Dr. Wickersham*

Caesar, Suetonius, or Tacitus. Three hours per week. *Four semester hours. (H, L.)*

LAT-304. The Roman Revolution *Dr. Wickersham*

Speeches and letters of Cicero, and other contemporary documents. *Three hours per week.*

LAT-305. Vergil's Aeneid *Dr. Wickersham*

Study of the epic that defined Roman destiny and made empire acceptable to Europe. Three hours per week. *Four semester hours. (H, L.)*

LAT-307. Selected Topics *Dr. Wickersham*

Content variable, concentration on author, period, genre and the like. Three hours per week. *Four semester hours. (H, L.)*

LAT-308. Selected Topics *Dr. Wickersham*

Three hours per week. *Four semester hours.* (H, L.)

LAT-401W. Seminar *Dr. Wickersham*

Seminars of changing content, for study of special topics, authors, genres combined with study and practice in writing. Three hours per week. *Four semester hours.* (H, L.)

LAT-402. Seminar *Dr. Wickersham*

Seminars of changing content, for study of special topics, authors, genres. Three hours per week. *Four semester hours.* (H, L.)

LAT-491W. Research/Independent Work *Faculty*

This course is open to candidates for departmental honors and to other students with the permission of the department chairperson. Concentration in the topic of the honors thesis, with study and practice of writing. *Four semester hours.* (L.)

LAT-492. Research/Independent Work *Faculty*

A continuation of LAT-491. Prerequisite: LAT-491. *Four semester hours.* (L.)

Common Intellectual Experience

Assistant Professor Kessler

The goals of the two Common Intellectual Experience Seminars are 1) to develop a student's ability to think critically through a pedagogy which stresses the intellectual process; 2) to foster the essential skills of critical reading, effective speaking and clear writing; 3) to develop these skills within the intellectually challenging context of three broad questions relevant to the human condition; 4) to enable the student to make connections across the traditional disciplines; and 5) to promote a shared intellectual endeavor for all entering students.

All students are required to enroll in CIE-100 and CIE-200 during the fall and spring, respectively, of their first year. (In unusual circumstances, students, with permission of the Office of the Dean, may take CIE in the second year.)

While Common Intellectual Experience Seminars have an enrollment limited to 16 students to provide an atmosphere conducive to discovery and inquiry, the small sections meet together, from time to time, for common events. Faculty members from all disciplines lead students to reflect about significant issues that introduce them to the intellectual climate of the College. Reading assignments consist of seven or eight books or equivalents. Frequent writing and oral assignments are required throughout the course.

CIE-100. Common Intellectual Experience I *Faculty*

The first of a two-semester course introducing inquiry into the central questions of a liberal education: what does it mean to be human? How should we live our lives? What is the universe and how do we fit into it? The course will explore these questions through the study of foundational texts in a variety of disciplines. The first semester begins with ancient times and concludes with the advent of modern science. Four hours per week. *Four semester hours.* (CIE)

CIE-200. Common Intellectual Experience II *Faculty*

This course brings the inquiry of CIE-100 (CIE I) into the modern era. Specifically, the semester begins with the Enlightenment and concludes with a consideration of contemporary situations. The main questions of CIE-100 will continue to be explored through the study of foundational and contemporary texts from many disciplines. Four hours per week. *Four semester hours.* (CIE)

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CIE-300. Common Intellectual Experience III *Faculty*

This course allows deeper exploration into issues and texts encountered in CIE-100 and CIE-200. While the topics may vary each semester, this seminar will be a discussion-oriented, interdisciplinary course that permits engagement with themes in a more sustained and focused manner. Prerequisite: Junior or senior standing. Three hours per week. *Four semester hours. (Possible D or G, depending on the topic.)*

Note: This course may be taken more than once.

Dance (*See Theater and Dance*)

East Asian Studies

Professors Clark (Coordinator), Hood; Associate Professor Mizenko, Lecturer Yamashita

Acquaintance with cultures other than our own is an integral part of both a liberal education and preparation for a career in a variety of fields, including business, law, government, or teaching. The major and minor in East Asian Studies are interdisciplinary programs drawing on offerings in several departments, but emphasizing history, culture, politics, literature and language. The programs are designed to provide an introduction to the cultures of China and Japan; in reflection of Ursinus' relationship with our sister school, Tohoku Gakuin University (TGU), located in Sendai, Japan, offerings emphasize the latter.

In addition to the courses offered on the Ursinus campus, students either majoring or minoring in East Asian Studies are encouraged to take advantage of off-campus study-abroad opportunities, including the Ursinus Summer Study in Japan (EAS-301) and the Semester in Japan (EAS-399), both offered in conjunction with TGU. Students seeking intensive language experience should consult with the language faculty about appropriate overseas or summer-intensive programs.

Teacher Certification

Ursinus is one of only a small number of institutions in Pennsylvania to offer certification for secondary-school teaching in Japanese language. For requirements, candidates should consult the Ursinus College Education Department as well as their Japanese language instructor. Certification requires passing a language competency examination.

Requirements for Majors

- 1) A minimum of 12 hours of appropriate language study beyond the introductory 101/102 level (NOTE: EAS majors are encouraged to complete all or some of this requirement either through study abroad or summer-intensive programs, including the college-sponsored Semester Study in Japan program [EAS-399]; regarding major credit, see Note below). Students may satisfy this requirement through equivalent off-campus study — including study abroad — of Chinese, Korean, or other appropriate East Asian language, subject to college approval.
- 2) 12 credits from History 241, 243; Politics 346, 347; EAS-299, 314; or ENG/EAS-224;
- 3) A capstone experience either in an approved seminar in History, Politics, Modern Languages, or other department as appropriate, EAS-400W, or EAS-491W/492W;
- 4) An appropriate methodology course (i.e. Business and Economics 212, English 290W, History 200W, Politics 252 or 300Q, ANSO-200, or other approved course);

- 5) 12 additional credits from the following courses (NOTE: at least eight credits must be at the 300-level): Anthropology 232, 351, 371, 372 (NOTE: except for 232, Anthropology courses must have the permission of the East Asian Studies coordinator), EAS-299, 301, 314, 398, 399, ENG/EAS-224, History 241, 243, 341, 342, 344, 345, 361, Politics 346, 347, 353, 358, and Religious Studies 211, or approved topics courses in Anthropology and Sociology, Business and Economics, East Asian Studies, English, History, Politics, or Philosophy and Religious Studies.

Note: For the purposes of the EAS major, students who complete EAS 398-399 will receive 3 credits toward the appropriate level of Japanese language, to be determined by the Ursinus faculty, and full credit toward #5 above.

Requirements for Minors

A minor concentration in East Asian Studies consists of 20 credits from courses dealing with East Asia. Twelve credits must come from History 241, 243; Politics 346, 347; or ENG/EAS-224. The remaining credits must come from the following: EAS-299, 301, 314, 398, 399; Japanese 111, 112, 211, 212, 311, 312, 328; History 241, 243, 341, 342, 344, 361; Politics 346, 347, 353 or Religious Studies 211.

EAS/ENGL-224. Japanese Literature in Translation *Dr. Mizenko*

Critical reading of representative Japanese literary texts in English translation. This survey begins with ancient texts and concludes with mid-20th century fiction. The focus is on tracing the development of the lyrical and expressive tradition in poetry, and its influence on such genres as drama, essays, diaries and fictional narratives. Three hours per week. *Four semester hours. (H, G.)*

EAS-299. Topics in East Asian Studies *Faculty*

An interdisciplinary topics course focusing on aspects of East Asian culture, the specific topic to be chosen by the instructor. To be taught in English by guest faculty. Four hours per week. *Four semester hours. (G.)*

EAS-301. Summer Study in Japan *Faculty*

A five-week course offered in collaboration with Tohoku Gakuin University in Sendai, Japan. This interdisciplinary course comprises three weeks of classroom instruction in Sendai on selected topics of Japanese culture and society, plus an introduction to conversational Japanese language, followed by a two-week tour of Japan. Instruction is in English and is provided by the faculty of Tohoku Gakuin University as well as members of the Ursinus faculty. Offered annually mid-May through June. Not open to incoming freshmen. *Four semester hours. (G.)*

EAS-314. Contemporary Japanese Culture. *Dr. Mizenko*

An introduction to contemporary Japanese culture in its socio-historical context from the post-WWII era to the present. Course materials will include fiction, nonfiction, manga, film, anime, and the visual arts. Among the topics typically addressed are Hiroshima and its aftermath, the social impact of economic reconstruction, gender and ethnicity, postmodern identity and society, the environment, technology and cyborgs, education and business, and the continuing search for definitions of what it means to be Japanese. Taught in English; no knowledge of the Japanese language is necessary. Four hours per week. Several required film screenings. *Four semester hours. (H, G.)*

EAS-398. Study in Japan Pre-Departure Program *Faculty*

An introduction to basic themes of Japanese history, culture, society. This is a required course for all Ursinus students participating in either EAS-399, Semester in Japan, or EAS-301, Summer Study in Japan. Enrollment by permission of the instructor. The course meets 75 minutes/week for six weeks after spring break. *One semester hour.*

EAS-399. Semester in Japan *Faculty*

Ursinus College has a long-standing tradition of exchange programs with Tohoku Gakuin University, our sister university in Sendai, Japan. The fall semester exchange program provides Ursinus students with the opportunity to spend the fall semester at Tohoku Gakuin. In addition to intensive Japanese language training,

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classes are offered in a variety of topics. Except for the language classes, courses are taught in English. The program is open to all majors, Admission is competitive. NOTE: Grades (Pass/Fail) earned in the Semester in Japan program will not count in the student's cumulative GPA at Ursinus. Prerequisite: EAS-398 and two semesters of Japanese language. *Fifteen semester hours. (H.)*

EAS-400W. Research in East Asian Studies *Faculty*

A capstone course for East Asian Studies majors only, involving a supervised independent research project and an oral presentation to EAS faculty. Prior approval of the East Asian Studies coordinator and supervising faculty required. *Four semester hours. (i.)*

EAS-491W. Research/Independent Work *Faculty*

This course is open to candidates for honors in East Asian Studies and to other students with the permission of the East Asian Studies coordinator. *Four semester hours. (I.)*

EAS-492W. Research/Independent Work *Faculty*

A continuation of EAS-491W. Prerequisite: 491W. *Four semester hours. (I.)*

Education

Prof. Masciantonio (Interim Chair); Assistant Professors Cohen, Spencer.

The Education Department offers an interdisciplinary approach into the study of the history, philosophy, psychology, and methodology of teaching and learning in public and private schools of the United States. Seminal educational texts, such as those of Rousseau, Emerson and Dewey, are studied and analyzed in the context of more recent educational theorists and reformers. Field experiences in every course help students to ground theory into the logistics and realities of the present day classroom. With an emphasis on action research, reflectivity, and social agency, coursework entails inductive, collaborative, and active learning through student-generated interests, readings, projects, and presentations.

The Education Department is a service department which does not offer a major in education, but does offer teaching certification in 14 disciplines, a minor in elementary education, and a minor in secondary education. Students who are considering careers in educational settings or who seek to broaden their liberal arts knowledge base often enroll in the introductory or elective education courses to ascertain the extent of their interest in pursuing additional coursework. The Ursinus College Teacher Education Program is dedicated to preparing education professionals who can effectively inspire, motivate, and educate all of their students for positive participation in a culturally and technologically expanding world.

This includes:

- Learning the history and basis of education to build a foundation to integrate different perspectives and a broad creative attitude.
- Enabling students to adapt to the shifting institutions of individual school and state education programs in order to meet the needs of all students, including those in a variety of districts containing a multitude of resources.
- Valuing exceptionalities, differences of cultures and lifestyles as a foundation of a pluralistic democracy.
- Collaborating with fellow educators by way of field-work, resources, and professional organizations.
- Applying knowledge and experience achieved in Ursinus College's education program to the ever-changing modern world.

Teaching Certification

The Teaching Certification program prepares students for entry-level knowledge and skills for public or private school positions in the following disciplines:

Biology (7-12)	General Science (7-12)	Latin (K-12)
Chemistry (7-12)	German (K-12)	Mathematics (7-12)
English (7-12)	Health and Physical	Physics (7-12)
Environmental Studies (K-12)	Education (K-12)	Social Studies (7-12)
French (K-12)	Japanese (K-12)	Spanish (K-12)

All students seeking teaching certification must fulfill all of the following requirements before they can be officially admitted into the Ursinus College Teacher Certification Program:

- Completion of 48 hours of college-level study;
- Completion of CIE-100 and CIE-200;
- Completion of one course in Mathematics; and one four-credit Q course, or two four credit courses in mathematics;
- Completion of EDUC-202;
- Attainment of passing scores on Praxis I (Reading, Writing, Math exams);
- Attainment of an overall GPA of 3.00 for admission into the program.

Teacher candidates must maintain the required overall GPA every semester thereafter, to be able to student teach and to be eligible for recommendation for teaching certification. To complete the observation hours required for most education courses, teacher candidates are required to file a Pennsylvania Criminal Background Check, Federal Criminal History Record (finger prints) and a PA Child Abuse History Clearance. They must also provide verification of a negative TB tine test. Additional information on clearances may be obtained from the Education Department.

One year prior to student teaching, teacher candidates must schedule an interview with the Education Department for approval to register for EDUC- 405 (Student Teaching) for the following year.

In addition to maintaining an overall GPA to be eligible to student teach candidates must meet all of the following criteria to achieve certification:

- A 3.00 average in EDUC-202, EDUC-320, EDUC-344, EDUC-441, EDUC-443, and EDUC/PSYC-265; Note: Students seeking certification in Health and Physical Education are required to complete ESS-355 and ESS-356 instead of EDUC-441 and EDUC-443.
- Specified major departmental GPA in the candidate's certification area;
- Recommendation by the candidate's major department
- Attain at least a grade of B in student teaching;
- Pass the PDE 430 Evaluation
- Pass Praxis II (Content Area) exams;
- Demonstrate good moral character.

The Pennsylvania Department of Education will certify candidates for the provisional Instructional I certificate upon recommendation of the Education Chair who serves as the State Certification Officer for the College. (Pennsylvania requires U.S. citizenship for certification, except for the teaching of foreign languages.) Reciprocal agreements extend certification eligibility to most states, but some states require additional certification tests. Candidates who wish to teach outside Pennsylvania should contact state Education Departments for further information.

Eligibility for permanent certification in any state depends upon successful full-time teaching and professional development requirements which vary among individual states.

Teacher Certification Course Sequence

Students interested in certification should contact both the major adviser and the Education Department. Please note that a minor in education is not necessary for teacher certification.

Typical schedules are listed below. The courses are four credits unless noted otherwise.

Year 1 PSYC-100 Introductory Psychology

EDUC-202 Introduction to Education (2nd semester)

Year 2 EDUC/PSYC-265 Educational Psychology

EDUC-320 Diversity of Learners

Note: Field experience is required in EDUC/PSYC-265, EDUC-320, EDUC-344, EDUC-441 and EDUC-443. (Students must arrange transportation.)

Year 3 EDUC-443 Special Methods (2 credits) Spring only

EDUC-344 Foundations of Education

EDUC-441 General Methods

Note: General Methods should be completed during the semester prior to student teaching. If a student elects to complete student teaching in the spring of his/her senior year, EDUC-441 should be completed during the fall semester.)

Note: Students enrolled in any education classes with required field experiences must file a PA Criminal Background Check, a PA Child Abuse History, and a Federal Criminal History Record (finger prints). They must also provide verification of a negative TB tine test. Instructions for these clearances are available from the Education Department

Year 4 EDUC-405 Student teaching (12 credits)

EDUC-406 Professional Applications (2 credits)

Note: These two courses are taken concurrently. No other courses, day or evening, may be scheduled.

Requirements for Minors

Students from any major who wish to broaden their knowledge about the educational history and current trends in the public school system may choose to minor in Education. Though certification students do not need to minor in Education, they may elect to take the two additional courses which would earn a minor, either in elementary or secondary education.

Minor in Elementary Education

Students who expect to pursue careers in which they will work with pre-school or elementary school-age children may minor in Elementary Education. This option can strengthen eligibility for admission to graduate school in such areas as elementary school teaching, school guidance or psychology, speech pathology, etc. Since certification students in ESS or modern languages become certified K-12, they often elect to complete this minor, particularly if they would prefer to teach younger grades. Course requirements include EDUC-202, EDUC/PSYC-265, EDUC-344, PSYC-345, and one from EDUC-320, 402, 434, or 446. (PSYC-330 is recommended.)

Minor in Secondary Education

Students who express interest in working with adolescents often decide to minor in Secondary Education. Course requirements include EDUC-202, EDUC/PSYC-265, EDUC-344, PSYC-355, and one from EDUC-320, 402, 434, or 446. (PSYC-330 is recommended.)

EDUC-202. Introduction to Education *Faculty*

An introductory course for those who plan to teach or who wish to know more, as citizens, about their public

schools. It deals with the organization and characteristics of the American school system, noting the characteristics of teaching as a profession and the teacher's responsibility in the classroom and the school. This course is open to first year students during their second semester. Three hours per week. *Four semester hours.* (SS, D.)

EDUC/PSYC-265. Educational Psychology *Faculty*

Educational application of psychological concepts will be addressed. The focus is on the psychological processes involved in learning and behavior management in the classroom, but the course includes a survey of cognitive and social development. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.* (SS, D.)

EDUC-320. Diversity of Learners *Faculty*

This course will focus on how the diverse needs of individuals with educational disabilities/differences can be met within the classroom environment. The philosophy of this course asserts that there are many forms of diversity and exceptionalities including linguistic, behavioral, and cognitive differences. The course emphasizes working with families and school specialists and personalizing learning according to individual development in order to support English Language Learners and students with special needs. Field experience required. Prerequisite: EDUC-202 and ED/PSYC-265 or permission of instructor. Three hours per week. *Four semester hours.* (SS, D.)

EDUC-344. Foundations of Education *Faculty*

A study of the philosophical and historical foundations of education, with reference to current conditions and practices in the public schools. Field experience required. Three hours per week. *Four semester hours.* (SS, D.)

EDUC-351. Research *Faculty*

Readings and fieldwork designed to introduce students to research methods in education. Students select topics and write a proposal which must be approved by an education adviser. Regular meetings and progress reports and a final paper are required. Prerequisites: EDUC-202 and EDUC/PSYC-265. *One semester hour.*

EDUC-352. Research *Faculty*

Same as EDUC-351 but offered in spring. *One semester hour.*

EDUC/GWMS-402. Identity and Diversity *Faculty*

Analysis and exploration of individual influences and filters regarding racial and gender identity issues through examining and exchanging multiple viewpoints and perspectives in preparation for diversity in Education-based professions, with particular emphasis on teaching. An emphasis of the course will be on multicultural education, bilingual education, and special education. Field work required. Prerequisite: EDUC-202. Three hours per week. *Four semester hours.* (SS, D.)

EDUC-405. Student Teaching *Faculty*

A laboratory course consisting of observation and student teaching. Supervision is provided by faculty in the department of education and normally by other members of the College community in cooperation with teachers from local schools. Conferences and critiques occur between College faculty and student teachers. The course is open only to fourth-year students who meet published academic criteria. In order to receive the College's recommendation for teacher certification, the student teacher must earn a grade of at least B in this course. Prerequisites: EDUC-202, 320, 344, 441, 443; EDUC/PSYC-265. Taken with EDUC-406, as part of the Professional Semester. *Twelve semester hours.*

EDUC-406. Professional Applications *Faculty*

This course is taken concurrently with student teaching, and gives students an opportunity to engage in guided practice during their student teaching experience. Lesson planning, classroom management and student assessment will all be addressed. Two hours per week. *Two semester hours.*

EDUC-434. Curriculum Seminar *Faculty*

A study of selected topics relevant to reforming education in today's schools, with special attention to curriculum development. Includes field research. Three hours per week. *Four semester hours.* (SS, D.)

EDUC-441. General Teaching Methods *Faculty*

Principles of secondary school teaching; general methods of instruction; challenges of the beginning teacher; function and use of instructional materials. Taken in the semester just prior to student teaching. Prerequisites: EDUC-202, 344; EDUC/PSYC-265. Field experience required. Three hours per week. *Four semester hours.*

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EDUC-443. Special Teaching Methods *Faculty*

This course, which complements the general methods course (441), provides specialized instruction in teaching one of the subject areas offered in the College's teacher education programs. Sections are offered in each discipline and are noted on student records according to the following scheme. (C) Classical Languages [Latin]; (E) English, Environmental Studies; (L) Languages, Modern [French, German, Japanese, and Spanish]; (M) Mathematics; (S) Science [Biology, Chemistry, General Science, and Physics]; (X) Social Studies. Sections are taught by experts in the subject fields from the public schools. Prerequisites: EDUC-202, 344; EDUC/PSYC-265. Taken in the year prior to student teaching. Two hours per week. *Two semester hours.*

EDUC-446. Issues and Trends in Contemporary Education *Faculty*

This course will introduce students to advanced research in Education by engaging them in an interdisciplinary examination of a broad theme or question about the field of Education. Topics will vary with the instructor(s), will reflect the broader educational goals of valuing exceptionalities, differences of cultures and lifestyles as a foundation of a pluralistic democracy. Prerequisite: EDUC-202. Three hours per week. *Four semester hours. (D, SS.)*

EDUC-491. Research/Independent Work *Faculty*

Independent investigation of an aspect of teaching, using both the library to examine relevant literature and the school setting as a laboratory for applying theory. Oral progress reports and a major paper are required. Written consent of the research adviser and departmental faculty must be presented at the time of registration. *Four semester hours. (I.)*

EDUC-492. Research/Independent Work *Faculty*

Same as EDUC-491, but offered in the spring semester. *Four semester hours. (I.)*

English

Professors Dole (Chair), Lionarons, Schroeder, Volkmer, Wickersham; Assistant Professors Goldsmith, Ho Kozusko, Jaroff, Keita, Silverman, Smith.

Students choose to major in English because they love to read, they love to write, or both. The program for English majors builds on these passions by developing the skills of attentive reading, thoughtful analysis, and graceful writing.

Beginning English majors take two kinds of courses: surveys of British and American literature, designed to familiarize them with major trends and writers, and a methods course, in which they practice a variety of critical approaches to literary texts and learn the conventions of writing in the discipline. They also choose an elective or two from courses like women's literature, satire, or creative writing. In their junior and senior years, English majors select small colloquia and seminars with rotating topics so that they can share the faculty's current research interests. In all English classes, students work closely with instructors on the craft of writing.

The techniques one uses to read a novel, play, or poem can also be used to decode the world beyond the printed page. Our students read Jane Austen and William Shakespeare, William Faulkner and Toni Morrison, but they can also study film adaptations of literary texts, blues traditions in American literature, and technologies of communication from Gutenberg to hypertext. By encouraging English majors to use their interpretive and writing skills in multiple contexts, the English major prepares students to enter a wide variety of careers, to succeed in graduate or professional study, and to become engaged citizens of the world.

Requirements for Majors

Students majoring in English must complete ten courses, at least eight of which must be English courses. The eight English courses must include: 290W, 291, 292, and 293; at least three 300-level colloquia, including one covering literature before 1800 and one covering literature after

1800 (English 301 may count as a third colloquium); and a 400-level seminar or an honors paper. The two elective courses may include any of the following: additional English courses (no more than one 100-level English course may count toward the major), MCS-207, FS-101, FS-250, FS-251, FS-252, FS-253, and FS-305.

Students who want to be certified to teach English must fulfill all departmental requirements for an English major. Their courses should include literary genres, themes, chronologies, and major writers. In addition, students working toward certification must select the following courses: English 214; and either MCS-105, MCS-281, or any FS course. Students are strongly recommended to take either English 240 or a 300-level colloquium on Shakespeare and either IDS-101 or English 226. It is also strongly recommended that the candidate participate in student journalism or theater activities. Students and their advisers should consult the Ursinus College Education Department.

Requirements for Minors

A minor concentration in English consists of at least five courses in English at the 200 level or above. No more than one writing course (English 205-210, 302, and 402) may be included in the English minor. English 290W is strongly recommended.

A minor concentration in Creative Writing consists of at least five English courses, including English 402 and at least three of the following creative writing courses: 106, 205, 206, 209 (one or more sections), and 302. MCS-207 may also be counted toward the minor. One literature course may count toward the creative writing minor. Participation in student publications is also required.

ENGL-104. Introductory Topics in English *Faculty*

Each section of this course will focus on a different topic, generally on literature or film, designed to be of interest to students without specialized training in English. Limited to freshmen and sophomores. Three hours per week. *Four semester hours. (H.)*

ENGL-106 Introduction to Creative Writing *Faculty*

A mixed-genre introduction to writing fiction, poetry, and at least one other genre (such as memoir or playwriting), in a workshop environment. Three hours per week. *Four semester hours. (A.)*

ENGL-108. The Art of College Writing *Faculty*

An expository writing workshop, designed for students at all levels who want sustained attention to developing writing skills. Students will write frequent short papers and learn strategies to help them with every stage of the writing process, from generating ideas to shaping arguments to revising drafts. Three hours per week. *Four semester hours.*

ENGL-205. Fiction Writing *Dr. Volkmer*

A beginning course in the writing of fiction, with special attention to the short story. The student will study technical aspects of the craft and masterpieces of the genre. The student will write short stories, receive critical responses, and make extensive revisions. Three hours per week. *Four semester hours. (A.)*

ENGL-206. Poetry Writing *Dr. Volkmer, Prof. Keita*

A beginning course in the writing of poetry. The student will study selected works, learn traditional forms of the lyric, and write original verse in those forms. The student will make extensive revisions, based on responses from peers and the professor. Three hours per week. *Four semester hours. (A.)*

ENGL-209. Special Topics in Creative Writing *Faculty*

A workshop course in an area of creative writing not normally covered in ENGL-205 and 206. Topics will vary. Three hours per week. *Four semester hours. (A.)*

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ENGL-212. Special Topics *Faculty*

This course will focus on a special topic not covered elsewhere in the curriculum. Three hours per week. *Four semester hours.* (H, D-Latin/la Theater only.)

ENGL-214. Linguistics and Modern Grammar *Dr. Lionarons*

An introduction to synchronic and diachronic linguistics, stressing the ways in which linguistic structures promote effective communication. Recommended for future writers and lawyers as well as English teachers. Four hours per week. *Four semester hours.*

ENGL-222. African American Literary Traditions *Dr. Schroeder, Prof. Keita*

An overview of the literature written by black American writers from its beginnings to the twenty-first century. Three hours per week. *Four semester hours.* (H, D.)

ENGL-223. Topics in Ethnic American Literatures *Dr. Schroeder, Prof. Keita, Dr. Goldsmith*

Each special topic offered will introduce students to the literature of one or more American ethnic groups, approached either by genre, era, or major authors. Three hours per week. *Four semester hours.* (H, D)

ENGL/EAS-224. Japanese Literature in Translation *Dr. Mizenko*

Critical reading of representative works from Japanese literature in modern translation. This survey in a variety of genres begins with literature from the Ancient Period (Man'yōshū) and ends with modern novels and short stories. Three hours per week. *Four semester hours.* (G, H.)

ENGL-226/CLAS-326. Mythology *Dr. Wickersham*

Illustrated lectures survey the tales of gods and heroes in Greek legend, from the creation of the world to the end of the age of myth—the foundations of Western literature. Interpretive approaches are also studied. Prerequisite: CIE-100. Three hours per week. *Four semester hours.* (H.)

ENGL/GWMS-228. Women's Literature *Faculty*

A cross-period study of literature by British and American women, paying attention to issues of canon formation and feminist literary theory. Three hours per week. *Four semester hours.* (H, D.)

ENGL/CLAS-230 Epics of the World *Dr. Wickersham*

Read in English translation, a specimen of Western epic, such as Homer's Iliad and Odyssey or Vergil's Aeneid, is compared with a specimen of non-Western epic, such as the Indian Mahabharata or the Persian Book of Kings. Three hours per week. *Four semester hours.* (H, G.)

ENGL-232. Studies in Satire *Faculty*

An interdisciplinary (multimedia/intertextual) study of the modes of satire and critical commentary on satire, concentrating on the 18th and 20th centuries. Three hours per week. *Four semester hours.* (H.)

ENGL-240. Shakespeare *Dr. Kozusko*

The reading of Shakespeare's principal plays, and the study of their background. Three hours per week. *Four semester hours. (H.)*

ENGL/ENV-262. The Environment in Literature. *Faculty*

Students in this course will study literature inspired by a variety of environments. Readings will range from classic essays "Nature" by Emerson and "Walking" by Thoreau to Terry Tempest Williams' 1991 environmental/autobiographical study, "Refuge: An Unnatural History of Family and Place." Ecocriticism, the study of the relationship between literature and the physical environment will provide the theoretical framework for the course. Writing for the class will be half-analytical (critical responses to texts), and half-original, creative student writings about their own environments. Three hours per week. *Four semester hours. (H.)*

ENGL-290W. Methods in Literary Studies *Faculty*

Designed as a gateway to the English major; appropriate for minors as well. Includes an introduction to critical vocabulary; study of the genres of poetry, prose, and drama; critical reading practices; a general introduction to literary theory; conventions of the literary research paper; and frequent practice of careful critical writing. Prerequisite: CIE-100, or permission of instructor. *Four semester hours.*

NOTE: Students who have received credit for the former ENGL-200W may not enroll in ENGL- 290W.

ENGL-291. British Literature I: Texts and Contexts *Dr. Kozusko, Dr. Lionarons, Faculty*

British literature from its beginnings into the eighteenth century. Includes attention to representative authors and movements, and to multiple genres. Intended primarily for English majors and minors. Prerequisite: CIE 100. Four hours per week. *Four semester hours. (H.)*

NOTE: Students who have received credit for the former ENGL-201 may not enroll in ENGL- 291.

ENGL-292. British Literature II: Texts and Contexts *Dr. Dole, Faculty*

British literature from the late-eighteenth century to the present. Includes attention to representative authors and movements, to multiple genres, and to world Anglophone literature. Intended primarily for English majors and minors. Prerequisite: ENGL-291 or 201. Four hours per week. *Four semester hours. (H.)*

NOTE: Students who have received credit for the former ENGL-202 may not enroll in ENGL- 292.

ENGL-293. American Literature: Texts and Contexts *Dr. Goldsmith, Dr. Jaroff, Dr. Schroeder*

American literature from the origins to the present. Includes attention to representative authors and movements, and to multiple genres. Intended primarily for English majors and minors. Prerequisite: CIE-100. Four hours per week. *Four semester hours. (H.)*

NOTE: Students who have received credit for the former ENGL-203 may not enroll in ENGL- 293.

Advanced Colloquia in English

These advanced courses are designed for junior and senior English majors, or for minors or other students with a serious interest in literary studies. Each colloquium will build on knowledge gained in lower-level courses, and will give the student opportunity for substantive research. To assure that students are prepared to work on an advanced level, each colloquium will have as prerequisites both English 200W and the appropriate survey course (from the series 201-203), or permission of the instructor.

English majors must take at least three colloquia, including one covering literature before 1800 and one covering literature after 1800.

In order to provide students with as many choices as possible in course selection, the English Department will let student and faculty interest dictate the topics of each semester's colloquia. Descriptions of the upcoming colloquia will be published each semester, along with the prerequisites for each colloquium.

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Colloquia will cover topics such as these:

- Women Writers of the Middle Ages
- Blues and Literature
- Before the Conquest: Old English
- War Literature
- Renaissance Tragedy: Shakespeare and Other Playwrights
- Women and Theater
- African-American Drama
- Literature into Film in Britain and America
- The Harlem Renaissance
- Werewolves and other Shapeshifters
- Chaucer
- Biography and Autobiography
- Literature in Translation
- Upward Mobility: A Study of the American Novel
- Postmodern Fictions
- Novels of the night: The Gothic Novel
- Ulysses' Journey from Homer to Joyce

ENGL-301. Literary Theory *Dr. Jaroff, Dr. Goldsmith*

A study of theoretical approaches to literary texts, such as feminism, postcolonialism, and cultural studies. Recommended especially for students considering teaching or graduate studies in English; required for English honors candidates. Prerequisites: ENGL- 290W and one of 291-293; or permission of instructor. Three hours per week. *Four semester hours.*

ENGL-302. Advanced Special Topics in Creative Writing *Faculty*

A workshop course designed for advanced creative writing students who have already completed one or more sections of 205, 206, or 209. Students will have the opportunity to develop skills already learned at the 200 level. Topics and specific prerequisites will vary. Three hours per week. *Four semester hours. (A.)*

ENGL-381A. Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an onsite supervisor, involving eight to 10 hours weekly. Discuss details with the chair of the department. Prerequisites: Junior or senior standing and the approval of an internship adviser. *Three semester hours. (I.)*

ENGL-381B. Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an onsite supervisor, involving 11 to 14 hours weekly. Discuss details with the chair of the department. Prerequisites: Junior or senior standing and the approval of an internship adviser. *Four semester hours. (I.)*

ENGL-391. Independent Study in English *Faculty*

Independent work, either scholarly or creative, under the supervision of a faculty adviser. A substantial final written project is required. Prerequisites: at least three English classes at the 200 level or above, a written project proposal; and permission of a department faculty member who will serve as adviser. *Four semester hours. (I.)*

ENGL-402. Advanced Creative Writing *Dr. Volkmer, Prof. Keita*

A workshop course in creative writing offering the student the opportunity to receive significant critical responses on extended works of poetry or prose fiction. Prerequisite: at least two of the following: ENGL-205, 206, 209 (one or more sections), MCS-207; or permission of the instructor. Three hours per week. *Four semester hours. (A.)*

ENGL-441 through 444. Seminar in Advanced Studies in Literature *Faculty*

A study of a genre, a major figure, or a special topic. Prerequisites: ENGL-200W; or 301; senior or second-semester junior standing. This course will satisfy the College requirement for a capstone experience and an oral presentation in the major. Three hours per week. *Four semester hours. (H.)*

ENGL-491. Research/Independent Work *Faculty*

This course is open to candidates for departmental honors and to other students with the permission of the department chair. Pre- or co-requisite: ENGL-301. *Four semester hours. (I.)*

ENGL-492. Research/Independent Work Faculty

A continuation of course ENGL-491. Prerequisite: ENGL-491. When this course is used to fulfill the capstone experience in the major, the student will be required to give a substantial oral presentation of the research project, either to the departmental honor society or to another group approved by the project adviser. *Four semester hours. (I.)*

Environmental Studies

Professors E. Dawley, R. Dawley, Oboler, Rideout, Sidie, Small; *Associate Professors* Goddard, Kane, Wallace (*Chair*); *Assistant Professors* Hurley, Joseph, Randall, Sorensen.

Human relationships with the natural world range across disciplines, from the cultural, philosophical, ethical, and aesthetic to the scientific, economic and political. The Ursinus College Environmental Studies Program offers students an opportunity to study and experience environmental issues from multiple perspectives. Students may either major or minor in environmental studies (ENV). Majors are required to complete a minor or a second major in another discipline. Independent research is an integral part of the program, allowing students to pursue a topic of their interest in a more detailed and self-directed fashion. Ursinus students are active on campus, working with members of the faculty, staff, and administration on campus sustainability projects involving recycling, energy efficiency, water resource management, purchasing and contracting policies, landscape management, and other issues. ENV students are also required to undertake an internship to fulfill the major requirements. ENV students have held internship positions in local and regional organizations involved in all facets of conservation science and policy, with groups such as the Pennsylvania Department of Environmental Protection, Nature Conservancy, Perkiomen Watershed Conservancy, Philadelphia Zoo, Elmwood Park Zoo, Academy of Natural Sciences, Schuylkill Center for Environmental Education, environmental consulting groups, law offices, and other organizations. These professional positions add to experiences fostered by the program's relationships with local conservation organizations and which permeate both the curriculum and extracurricular opportunities provided at the college (including courses, speaker series, local ecosystem restoration efforts, and other activities undertaken with local conservation groups). The environmental studies major offers both a breadth of environmental education and the opportunity to focus attention on an area of expertise relevant to promoting critical thinking and an environmentally sustainable society. Students majoring in environmental studies at Ursinus prepare for successful graduate study and careers in environmental sciences, policy, law, journalism, government service, and many other areas.

Requirements for Majors

All students majoring in Environmental Studies must take a minimum of 11 courses from among three categories: ENV core courses, ENV electives in the natural sciences, and ENV electives in the social sciences and humanities. All ENV majors must also complete a minor in another field of study. The ENV curricular requirements are as follows:

ENV core courses (must complete all of the following):

1. ENV-100, Issues in Environmental Studies
2. ENV/BIO-250, Environmental Biology
3. Three synthesis courses that require completion of ENV-100, from among the following:

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- ENV-272, Marine Mammal Conservation and Management
- ENV-340W, Food, Society, and the Environment
- ENV-360, Conserving Biological Diversity
- ENV-362, Managing Parks and Protected Areas
- ENV-364, Ecosystem Management

4. ENV-381A or 381B, Internship

5. ENV-470W, Environmental Studies Senior Seminar

ENV courses in the natural sciences (must take two of the following courses):

Biology:	ENV/BIO-220, Biology of Maya Mexico ENV/BIO-310, Biological Oceanography ENV/BIO-320, Biology of the Neotropics ENV/BIO-330, Marine Biology ENV/BIO-415W, Ecology
Chemistry:	ENV/CHEM-352 and 352a, Environmental Chemistry
Geology:	ENV/GEOL-105Q, Environmental Geology

ENV courses in the social sciences and humanities (must take courses in two of the following disciplines):

Anthropology/Sociology:	ENV/SOC-220, Environmental Justice ENV/ANTH-352, Peoples and their Environments ENV/SOC-285, Environmental Sociology
Economics:	ENV/BE-231, Economics of Environment and Natural Resources
English:	ENV/ENGL-262, The Environment in Literature
Environmental Studies:	ENV-430W, Advanced Environmental Policy Analysis
Philosophy:	ENV/PHIL-348, Environmental Ethics
Politics:	ENV/POL-326, Environmental Law
Psychology:	ENV/PSYC-282, Environmental Psychology

In consultation with the ENV Chair, students may petition to have ENV-350 (Topics in Environmental Studies), ENV-481W or 482W (independent research), or ENV-491W and ENV-492W (honors research) satisfy requirements in the synthesis, natural science, or social science/humanities categories. For independent or honors research to fulfill the major requirements students must have completed 12 semester hours of environmental studies courses, including ENV-100, and receive permission of the ENV Chair.

Requirements for Minors

All students minoring in Environmental Studies must complete a minimum of six courses in environmental studies, including ENV-100, two ENV synthesis courses from those specified above, and at least one course each from the ENV/Natural Science and ENV/Social Science and Humanities categories. Students minoring in Environmental Studies are encouraged to take ENV-470W, the senior seminar, as one of their electives. ENV-350 (Topics in Environmental Studies) courses, independent research, or internships may satisfy the requirements of the minor. Students must receive permission of the ENV Chair for independent research or an internship to fulfill requirements of the minor.

ENV-100. Issues in Environmental Studies *Faculty*

An introductory interdisciplinary course with readings and research on topics across all fields of environmental studies. This course examines environmental issues through many lenses, including ecology, economics, ethics, policy analysis, and the arts. Issues explored include (but are not limited to) population, energy, biodiversity

and ecosystem conservation, food and agriculture, global warming, ozone depletion, air pollution, water resources management, and solid waste. Student projects include investigations of local environmental issues and applied conservation activities within the Ursinus and surrounding communities. Four hours per week. *Four semester hours.*

ENV/GEOL-101Q. Geology: The Earth Around Us *Dr. Joseph, Faculty*

This course examines the current state of knowledge about the Earth and investigates the forces and processes that shape it. Topics include the formation of the Earth and solar system, the materials that comprise the Earth, the forces that currently act on, around, and within the planet, and the relationship of these forces to the processes and features we observe and/or experience at the Earth's surface. To address complex and dynamic geologic processes, this course utilizes knowledge and methods from several disciplines in addition to geology, including biology, math, physics, and chemistry. Three hours of lecture and three hours of laboratory per week. *Four semester hours. (LS.)*

ENV/GEOL-105Q. Environmental Geology *Dr. Joseph, Faculty*

An introduction to environmental geosciences. Includes a study of the earth's environmental systems: lithosphere, hydrosphere, atmosphere, mineral resources, weathering, soils, rivers and flooding, ground water, climate, oceans and coastline erosion, energy sources, human populations, and environmental change. Three hours of lecture and three hours of laboratory per week. *Four semester hours. (LS.)*

ENV/BE-213. Economics of Environment and Natural Resources *Dr. Randall*

Economic analysis is used to inform, analyze, and evaluate current environmental and natural resource policy decisions. Analyses of environmental problems use cost-benefit or efficiency criteria. Topics include externalities, public goods, common property rights, and sustainability. Prerequisite: BE-100. Three hours per week. *Four semester hours. (SS.)*

ENV/BIO-220. Biology of Maya Mexico *Dr. E. Dawley, Dr. R. Dawley*

A study of the environments, fauna, and flora of tropical Mexico and their relation to the Maya people who inhabit that region. We will examine coral reefs, coastal waters, and lowland and highland forests, focusing on animals and plants of particular importance to the ecosystem they inhabit and to the Maya people, past and present. Prerequisite: None. Field investigations accompanied by readings, lectures, and an independent project resulting in a review or research paper. *Four semester hours.* (This course is part of the UC in Maya Mexico Program.)

ENV/SOC-220. Environmental Justice *Faculty*

This course will examine how the burdens of local and global environmental problems are distributed across race, class, and gender. Through the examination of local, national, and international case studies, we will gain an understanding of how the risks associated with exposure to toxic pollutants and other environmental hazards coincide with pre-existing patterns of inequality, both globally and in the United States. Close attention will be paid to the political-historical processes through which the distribution of environmental hazard has been produced, and how affected communities have resisted these processes. Prerequisite: any 100-level course in Anthropology or Sociology or permission of the instructor. Three hours per week. *Four semester hours. (SS.)*

ENV/PHIL-248. Environmental Ethics *Dr. Sorensen*

The central issue in environmental ethics concerns what things in nature have moral standing and how conflicts of interest among them are to be resolved. After an introduction to ethical theory, topics to be covered include anthropocentrism, the moral status of non-human sentient beings, preservation of endangered species and the wilderness, holism versus individualism, and the land ethic. Three hours per week. *Four semester hours. (H.)*

ENV/BIO-250. Environmental Biology *Dr. Sidie*

A study of the biological basis of environmental issues. Includes ecosystems, communities, populations, water, energy, geologic resources, biodiversity, weather/climate, pollution, agriculture/hunger, soil resources/pests, solid/toxic hazardous waste, toxicology, land use. Prerequisite: BIO-101Q or permission of the instructor. Three hours of lecture. Three hours of lab per week. *Four semester hours. (LS.)*

ENV/ANTH-352. Peoples and Their Environments *Dr. Oboler*

Human cultural patterns and social institutions are adaptations to particular physical and social environments, and also have impacts on those environments. This course is concerned with the relationship between

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environments and subsistence systems on the one hand, and social/political institutions and belief systems on the other, using case studies from a variety of traditional societies. We will also consider the relationship between the global ecosystem and problems of Third World development, patterns of peasant production, causes and consequences of rapid population growth, and the fate of indigenous peoples. Prerequisites: ANTH-100 or permission of the instructor. Three hours per week. *Four semester hours.* (SS.)

ENV/ENGL-262. The Environment in Literature. *Faculty*

Students in this course will study literature inspired by a variety of environments. Readings will range from classic essays "Nature" by Emerson and "Walking" by Thoreau to Terry Tempest Williams' 1991 environmental/autobiographical study, "Refuge: An Unnatural History of Family and Place." Ecocriticism, the study of the relationship between literature and the physical environment will provide the theoretical framework for the course. Writing for the class will be half-analytical (critical responses to texts), and half-original, creative student writings about their own environments. Prerequisite: CIE-100. Three hours per week. *Four semester hours.* (H.)

ENV-272. Marine Mammal Conservation and Management *Dr. Wallace*

This course addresses historical and current issues concerning the conservation and management of marine mammals, their habitats, and related marine resources. It integrates the biological sciences, policy, law, economics, and humanities (in the form of ethics and values) in presenting and engaging the students in discussions about the history of human-marine mammal interactions, changes in human values and attitudes about the marine environment, the role of human-marine mammal interactions in societal changes, and the policy arena that has developed around marine mammals in the past century. Prerequisite: ENV-100. Three hours per week. *Four semester hours.*

ENV/PSYC-282. Environmental Psychology *Faculty*

Study of the interrelationship between human behavior and experience and the manmade and natural environments. Topics include: influences of weather, climate, noise, crowding, and stress; personal space and territoriality; work, leisure, and learning environments; the natural environment and behavioral solutions to environmental problems. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.* (SS.)

ENV/SOC-285. Environmental Sociology *Dr. Hudson*

This course will introduce the field of environmental sociology – the study of interactions between humans, groups and the environment. Students will become familiar with a variety of theoretical frameworks for analyzing environmental problems and apply them to a range of environmental issues scaled from the local to the global. Participants will emerge with a critical ability to analyze popular accounts of environmental problems and proposed solutions with a sociological eye. Prerequisite: any 100-level course in Anthropology or Sociology or permission of the instructor. Three hours per week. *Four semester hours.* (SS.)

ENV-299. Readings in Environmental Studies *Faculty*

Individual study and directed reading of a particular topic or book within the discipline. Students will work closely with a member of the ENV faculty in selecting, reading, and discussing the topic, and in determining a proper written assignment. Prerequisites: ENV-100 and permission of the instructor. *One semester hour.*

ENV/BIO-310. Biological Oceanography *Dr. Goddard, Dr. Sidie*

A study of the biological bases of ocean science. Topics discussed include: ocean basins, seawater physics and chemistry, currents, waves, tides, upwelling zones, tidal rhythms in organisms, ocean habitats/biota, marine virology, marine microbiology, plankton, trophic relationships, hydrothermal vent communities, coral reefs. Prerequisite: BIO-101Q or permission of the instructor. Three hours of lecture; three hours of laboratory per week. (Course may be conducted in part at a marine field station). *Four semester hours.* (LS.)

ENV/BIO-320. Biology of the Neotropics *Dr. E. Dawley, Dr. R. Dawley*

A field study of Costa Rican tropical habitats including rain forests, montane forests, seasonally dry forests, and wetlands conducted at research sites throughout the country. Topics include diversity and natural history of key plants and animals, ecological interactions and evolutionary processes, and conservation. May include side trips to cloud forests or coral reefs. Prerequisite: Permission of instructor and BIO-101Q. Field investigations accompanied by readings, lectures, and a directed research project. Course will meet 15 hours on campus and three weeks in Costa Rica between the Fall and Spring semesters. *Four semester hours.* (LS.)

ENV/POL-326. Environmental Law *Dr. Kane*

The study of various state, national, and international legal patterns that have arisen to address environmental concerns. The environmental field will be used to examine the nature and effectiveness of civil, criminal, and administrative action to address a complicated and important social issue. Topics will include federal administrative law; international trade and environmental regulation; control of toxic substances and hazardous wastes; the impact of scientific uncertainty on regulation; federal regulatory programs; civil liability under federal regulations; citizen suits; and the preservation of natural areas. Prerequisites: POL-218 for Politics and International Relations majors or permission of the instructor. Three hours per week. *Four semester hours.* (SS.)

ENV/BIO-330. Marine Biology *Dr. Sidie*

A field-oriented study of the important marine habitats, including pelagic and benthic zones, and intertidal communities. Topics include marine biodiversity-plants, protists, invertebrates, vertebrates; marine ecology; primary production in the sea; estuaries; plankton; nekton; marine mammals. Prerequisite: Permission of the instructor and BIO-101Q. Lecture and field investigations. (Course conducted in part at a marine field station.) *Four semester hours.* (LS.)

ENV-340W. Food, Society, and the Environment. *Dr. Wallace*

Few issues are as complex and interdisciplinary as what we eat. The seemingly simple every-day choices we make about our food have repercussions far beyond our diets and wallets. We will explore the food systems in which we live from many different perspectives to achieve an understanding of what food and food decisions mean in terms of personal health, welfare, and budgets, and in the context of society, economy, and sustainability. Written and oral communication of critical thinking is emphasized. Sophomores and above welcomed. Prerequisite: ENV-100. Three hours of lecture plus three hours of field or lab work per week. *Four semester hours.*

ENV-350. Topics in Environmental Studies *Faculty*

A study of a contemporary issue or specific subject area relating to the environment. Topics are often cross-disciplinary and vary according to the special interests of students and faculty. Potential topics include: energy and the environment; landscape architecture; urban environmental studies; and birds in their habitats. Prerequisite: permission of the instructor. Independent written work required. Lab and field work required in some cases. Three hours of class per week. *Four semester hours.*

ENV-360. Conserving Biological Diversity *Dr. Wallace*

A study of the conservation of biological diversity in the United States and abroad. Interdisciplinary analytical methods are used to investigate the loss and conservation of wildlife and habitats, with an emphasis on the development of conservation policy in the United States and comparative international case studies of endangered species protection. Specific topics include current trends in global biodiversity loss; the role of human values in biodiversity conservation; international biodiversity conservation strategies, initiatives at zoos and aquariums; and the protection of forests, rangelands, oceans, and coastal zones, birds, fish, marine mammals, and endangered species in the United States. Prerequisite: ENV-100. Three hours per week. *Four semester hours.*

ENV-362. Managing Parks and Protected Areas *Dr. Wallace*

A study of strategies for managing parks and protected natural areas locally and internationally. Emphasis is on learning the interdisciplinary tools necessary for developing management plans and implementing protected area policies. Case studies will address issues such as urban and suburban sprawl, pollution, natural resource extraction, biodiversity conservation, and the rights and concerns of indigenous peoples. Local field trips will supplement in-class learning by exposing students to protected areas studied in the classroom. Prerequisite: ENV-100. Three hours of lecture plus three hours of field work per week. *Four semester hours.*

ENV-364. Ecosystem Management *Dr. Wallace*

Sustainability is an important social goal, but learning how to achieve it at large scales is challenging and complex. This course examines the conceptual and contextual basis for managing and conserving nature at the ecosystem level. We will explore methods and theories for large-scale conservation, discuss how science, management, and policy are integrated in these efforts, apply problem solving methods to the challenges of large scale conservation, and investigate cases from the terrestrial and marine environments. Prerequisite: ENV-100. Three hours per week. *Four semester hours.*

ENV 381A. Internship. *Faculty*

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An off-campus academic/work experience under the supervision of a faculty internship advisor and an on-site supervisor, comprising between 120 and 159 hours of work during the course of the internship. Students must have completed 12 semester hours of environmental studies courses including ENV 100 and have permission of the supervising faculty member to be eligible for an internship. Students must document their experience according to the requirements delineated in the College catalog section on Off-Campus Study. Graded S/U. *Three semester hours. (I.)*

ENV 381B. Internship. *Faculty*

An off-campus academic/work experience under the supervision of a faculty internship advisor and an on-site supervisor, comprising at least 160 hours of work during the course of the internship. Students must have completed 12 semester hours of environmental studies courses including ENV 100 and have permission of the supervising faculty member to be eligible for an internship. Students must document their experience according to the requirements delineated in the College Catalog section on Off-Campus Study. Graded S/U. *Four semester hours. (I.)*

ENV/BIO-394. Watershed Investigations and Actions *Dr. Goddard*

This course combines class time, research, and community action. Scientific and historical aspects of the Darby Creek watershed examined will include a brief survey of creek flora and fauna and physical properties (limnology), land development directly adjacent to the creek starting in the U.S. colonial period and the industries along the creek that lead to the declaration of a Superfund Site along the creek. Laboratory research is an investigation of pollution in a species of creek fish. Community action is a survey of pollution-indicator macroinvertebrate species with elementary schools throughout the watershed. Prerequisite: BIO-201W; or permission of the instructor. Two hours of lecture and 7 hours of laboratory/community action per week. *Four semester hours.*

ENV/BIO-415W. Ecology. *Dr. Small*

Studies of the interrelationships between organisms and their environments that determine their distribution and abundance in natural systems. Aspects of energy flow, biotic and abiotic limits, population growth and community organization are considered in the context of the ecosystem. Laboratories include local field work and emphasize techniques for collecting and analyzing data. Prerequisites: BIO-101Q and 102Q and 201W, or permission of the instructor. This course fulfills the ENV capstone requirement. Three hours of lecture, three hours of laboratory per week. *Four semester hours. (LS.)*

ENV-430W. Advanced Environmental Policy Analysis. *Dr. Wallace*

This is an intensive seminar in methods of interdisciplinary environmental problem solving designed to improve professional development and practice in the many fields conservation. The objectives of this course are to help students develop an understanding of and technical proficiency in using qualitative analytical methods. Theory and cases will address environmental concerns at the local, regional, national, and international levels. Prerequisite: ENV-100, at least one ENV synthesis course, and junior standing. This course fulfills the ENV capstone and oral presentation requirements. Three hours per week. *Four semester hours. (SS.)*

ENV-470W. Environmental Studies Senior Seminar. *Faculty*

This is a capstone seminar in the methodology and application of critical thinking and other applied analytical and practical skills in environmental studies. It is designed to help students learn practical problem solving skills, and the theories that underlie them, that will help them to identify, define, and analyze environmental problems and develop responses to them. The seminar is designed to provide a synthesis experience for environmental studies majors and will entail group and individual work on a semester-long project. Project-related work will draw from the natural and social sciences as well as from ethics and the study of rhetoric. Prerequisites: ENV-100, junior or senior standing, and at least three additional ENV courses. This course fulfills the ENV capstone and oral presentation requirements. Three hours per week. *Four semester hours.*

ENV-481W. Research/Independent Work *Faculty*

An independent project conducted using research methods in environmental studies, and including original work in the field, laboratory, or other scholarly forum. Students must have completed 12 semester hours of environmental studies courses including ENV-100 or have permission of their adviser to be eligible for independent research. *Four semester hours. (I.)*

ENV-482W. Research/Independent Work *Faculty*

See course description for ENV-481W. (I.)

ENV-491W. Research/Independent Work *Faculty*

Students who are eligible for departmental honors can complete independent research work in this course. Work should be comprised of an independent project conducted using research methods in environmental studies, and including original work in the field, laboratory, or other scholarly forum. Students must have completed 12 semester hours of environmental studies courses including ENV-100 or have permission of their adviser to be eligible for independent research. *Four semester hours. (I)*

ENV-492W. Research/Independent Work *Faculty*

See course description for ENV-491W. (I.)

Exercise and Sport Science

Professors Borsdorf, Davidson, Engstrom (*Chair*); *Associate Professors* Chlad, Wailgum;
Assistant Professor Moliken, *Lecturers* Paisley, Vande Berg, Wright.

The Department of Exercise and Sport Science offers a comprehensive curriculum of study in the field of Exercise Science (e.g., pre-physical therapy, pre-nursing, pre-physician assistant, pre-occupational therapy and pre-athletic training graduate school preparation; corporate fitness/personal training certifications, graduate school preparation in exercise physiology, health promotion) and Pennsylvania teacher certification (K-12) in Health and Physical Education. ESS majors gain valuable clinical experiences working in a variety of exercise related settings (e.g., athletic training room, fitness center, and intramural sports program.)

The educational goals of the department are to introduce students to current concepts in the field of Exercise Science, to expose them to a variety of work-related experiences, and to involve them in various aspects of research. These experiences will foster a sense of responsibility and develop critical, independent thinking consistent with the objectives of a liberal arts education.

Requirements for Majors

Students majoring in the ESS Department must take the following courses:

I. Required Courses

All ESS majors must complete the following ESS courses: 100, 161W, 220, 265, 334, 351, & 352, BIO 305 and BIO 306 (prerequisites: BIO-101Q, BIO-102Q, and permission of the instructor).

II. Capstone Courses

All ESS majors must complete a capstone experience by taking ESS 446 or 447 or 491W, or the combination of ESS 465W and EDUC 405.

III. Elective Course Requirements

A. Exercise Science (ES) Concentration

All ES students must complete the following courses:

- Two of the following ESS courses: 232W, 300, 333, 447, or 464
- Two of the following ESS courses: 273, 278, 340, 446, or 452
- It is highly recommended ES majors elect to take ESS 267

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- It is highly recommended ES majors select three of the following ESS courses: any 209, any 210, 240, 247, 270, any Dance course, or any Aquatics course

It is highly recommended that students obtain graduate catalogs no later than the end of their sophomore year to determine individual prerequisite needs for graduate school. Students seeking admission to graduate allied health programs need to elect to take two or more upper level BIO courses (300/400 level) in addition to Anatomy and Physiology; CHEM-105/105L, 106/106L or 206/206L; MATH-111 and/or 241Q; PHYS-111Q, 112; and various courses from the Humanities and Social Science Divisions.

B. Teaching Concentration (TC)

All TC students must complete the following courses:

- ESS courses: 232W, 333, 355, 356, 462, and 464
- ESS courses: 235 or 267
- ESS/DANC-200, ESS-209 or 224, 223, 235, and 245

Note: Students wishing to obtain PA teacher certification for grades K-12 must take: EDUC-202, 265, 320, 344, 405, and 406. In addition, students must successfully complete the appropriate Praxis examinations.

Students must earn a cumulative 3.0 GPA (Pennsylvania Department of Education Standard) and a 2.8 GPA within the ESS Department to receive the departmental recommendation to be eligible to student teach. Students and their advisers should consult the Education Department Program Guide on the Ursinus College website for further information.

Minor Concentrations

A minor concentration in coaching consists of ESS-100, 220, 267, 365; 278 or 366W; select two of the following courses: 223, 224, 225, 226 or 234; ESS-270 is strongly recommended (23 credits).

A minor concentration in wellness education consists of ESS-100, 220, 340; select three of the following courses: 300, 333, 334, 446, 447, 464; ESS 209 and 270 are strongly recommended (23 credits).

A minor concentration in human performance assessment consists of ESS-100, 267, 352, 452; BIO-305 or ESS-280 and 282; and Human Physiology (24 credits).

Activities Courses

Students may elect activity courses listed at the 000 level. Students wishing to elect activity courses may not register for more than one activity course in any given semester and no more than 3 hours of activity courses may count toward the 128 semester hours required for graduation. The intent of activities courses will be to develop basic skills, improve fitness, foster the concepts of wellness, provide enjoyment, and develop recreational and social competencies through participation in lifetime sports and leisure activities. Analysis and movement courses are designed for ESS majors and will focus on movement analysis and teaching progression. Non-ESS majors may elect to take these courses with the permission of the ESS Department.

ESS-007. Basic Swimming *Dr. Davidson*

Course is designed to meet the needs of the non-swimmer and the beginning swimmer. Emphasis will be on skill development and the ARC Basic Water Safety program. Graded S/U. *One semester hour.* (Offered odd year fall semesters.)

ESS-008. Intermediate Swimming *Dr. Davidson*

Course is designed to meet the need of the intermediate level swimmer. Emphasis will be on skill development

and the A.R.C. Emergency Water Safety program. Graded S/U. *One semester hour.* (Offered even year fall semesters.)

ESS 050. Special Activities *Staff*

This course will focus on an activity not included in the current curriculum. Two hours per week. Graded S/U. *One semester hour.* (Offered occasionally in fall semesters.)

Theory Courses

ESS-100. Concepts of Wellness and Fitness *Dr. Borsdorf, Vande Berg*

An exploration of the various dimensions of wellness. Emphasis will be on the concepts of total fitness and wellness. Wellness/fitness self-testing, self-evaluation, and self-care skills will be examined. Three hours per week. *Four semester hours.* (Offered spring and fall semesters.)

Note: This course should be completed by ESS majors in either the freshman or sophomore year.

ESS-161W. Introduction to Research Writing *Prof. Wright*

This course will introduce ESS majors to the APA writing style. Research writing style, proper citation of referenced works, and proper APA formatting of written assignments will be emphasized. Two hours per week. *One semester hour.* (Offered spring and fall semesters.)

ESS/DANC-200. Fundamental Dance Technique *Prof. Aiken, Prof. Young*

This course is designed as an introduction into dance and movement techniques, and will prepare the student for the 200 level technique courses. The class will focus on the basic principles of dance movement, including alignment, coordination, musicality, and locomotion through space. Students will develop increased body awareness, flexibility and strength, and ease with a broad movement vocabulary. This course is open to all, no previous experience necessary. Four hours per week. *Two semester hours.* (Offered spring and fall semesters.) *(A partial.)*

ESS-209. Special Topics in Complementary Medicine and Holistic Health *Faculty*

An examination of a different holistic health or alternative medicine form will be studied each time this course is offered. Emphasis will be given to the relationship(s) between the identified health/wellness topic and traditional Western medical and wellness procedures. Topics may include Yoga, Tai Chi, Accupressure, Accupuncture, Therapeutic Massage. Three hours per week. *Two semester hours.* (Offered spring and fall semesters.)

ESS-210. Special Topics in Exercise Science *Faculty*

This course will be periodically offered in an area of special interest to students by a staff member or adjunct professor. Three hours per week. *Two semester hours.* (Offered occasionally in fall or spring semesters.)

ESS-220. Critical Components of Conditioning *Prof. Paisley*

This course is designed to introduce students to the concepts of conditioning as it relates to muscular strength and endurance as well as various forms of cardiovascular training. The course will emphasize the identification and analysis of the critical elements of weight training exercises, teaching progressions involved in conditioning, and safety and organizational implications of conditioning. Prerequisites: ESS-100 and permission of instructor. Three hours per week. *Three semester hours.* (Offered spring and fall semesters.)

ESS-223. Teaching Games for Understanding: Team Sports *Dr. Engstrom*

This course will provide an introduction to teaching team sports. Skill analysis, teaching progressions, coaching strategies, organizational and safety considerations will be emphasized during this course. Lesson plan design and video analysis of performance skills will be utilized to enhance each student's teaching skills. Three hours per week. *Two semester hours.* (Offered spring semesters.)

ESS-224. Theory and Analysis of Teaching Individual/Dual Sports *Prof. Wright*

This course will provide an introduction to teaching individual/dual sports. Skill analysis, teaching progressions, coaching strategies, organizational and safety considerations will be emphasized. Lesson plan design and video analysis of performance skills will be utilized to enhance each student's teaching skills. Three hours per week. Prerequisites: ESS-100 and permission of instructor. *Two semester hours.* (Offered spring semesters.)

ESS-225. Basic Movement Techniques in Individual and Team Sports *Prof. Moliken*

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This course analyzes the basic concepts of movement and decision-making that are crucial to athletic success in all the most popular sports. Basic principles such as spatial awareness, timing, visual skills, angles of movement, and reading cues will be thoroughly discussed and practiced. The students will learn the importance of consistently including these concepts when coaching youngsters in drills, small games and full scrimmages and games. The class will equally consist of practical participation, discussions and video analysis. Three hours per week. *Two semester hours.* (Offered odd year fall semesters.)

ESS-226. Effective Coaching Strategies *Prof. Moliken*

This course is designed to broaden the knowledge of future athletic coaches of all levels. Topics covered include budget analysis, recruitment of student athletes, philosophies of athletic programs, video analysis, and various styles and systems of team sport. Other broad-based topics will also be covered. The class will consist of group work, practical participation, and discussion. Prerequisite: ESS-225 or by permission of the instructor. Three hours per week. *Two semester hours.* (Offered even year fall semesters.)

ESS-232W. Current Trends in Health *Dr. Davidson*

This course will focus on the promotion of health education as it relates to the individual and the community at large. Special emphasis will be placed upon family and community health, consumer health, human sexuality and environmental health issues. This course will function as one of the writing intensive courses for students in the ESS Department. Prerequisite: permission of the department. Three hours per week. *Four semester hours. (D.)* (Offered fall semesters.)

ESS-234. Water Safety Instructor *Dr. Davidson*

Course leads to the American Red Cross certification as a Water Safety Instructor (WSI). Three hours per week. *Two semester hours.* (Offered even year spring semesters.)

ESS-235. Lifeguarding *Dr. Davidson*

This course leads to certification in American Red Cross standard first aid, CPR for Professional Rescuers, Lifeguard and Lifeguarding Instructor. Three hours per week. *Two semester hours.* (Offered odd year spring semesters.)

ESS-236. SCUBA *Faculty*

This course is designed to provide the student with the skills and knowledge to skin and SCUBA dive safely in an open water environment. Emphasis will be placed on an understanding of scientific principles and theory related to SCUBA diving. The course will provide a brief introduction to a variety of diving activities and locations available to recreational divers. Special emphasis will be placed on North and Mid-Atlantic shipwreck diving techniques. Students who satisfactorily complete this course and two days of open water diving (additional certification fee) will receive the National YMCA SCUBA Program's Open Water Certification. Students will be required to provide their own mask, fins, snorkel, weight belt, and booties. Three hours per week. *Two semester hours.* (Offered spring semesters.)

(A lab fee of \$140/student is required for the rental of SCUBA tanks and related equipment.)

ESS-240. Stress Management *Faculty*

Problem-solving principles that underlie stress management will be introduced, coping strategies for managing stress will be explored, and a personal stress management plans for a variety of populations will be developed. Three hours per week. *Two semester hours.* (Offered odd year spring semesters.)

ESS-245. Leadership in Adventure Activities *Dr. Engstrom*

Students will learn basic concepts of the leadership role in high-risk and adventure activities. A historical perspective, philosophical background, educational strategies and safety considerations will be discussed. Particular attention is given to the integration of environmental concerns, problem solving activities, group initiatives, and adventure activities in high-risk and adventure programming. Three hours a week. *Two semester hours.* (Offered spring semesters.)

ESS-247. Body Recall *Dr. Borsdorf*

The course focus will be on the needs of special populations, especially the needs of elders and the very sedentary. How to develop safe and effective physical fitness programs for the more fragile populations will be explored. Activities will utilize a variety of recreation and physical therapy incentives such as chairs, ropes, balls, music, and wands to enhance muscular strength, flexibility, balance and coordination. Students preparing to work with geriatric populations and other special populations are encouraged to enroll in this

course. Three hours per week. *Two semester hours.* (Offered odd year spring semesters.)

ESS-261W. Research Methods in Health and Human Performance *Dr. Wailgum*

This course will provide an introduction to research methodologies in health and human performance. Research design, problem selection, literature review; and acquisition, analysis, and presentation of data will be explored. Prerequisite: ESS-100. Three hours per week. *Four semester hours.* (Offered odd year spring semesters.)

ESS-265. Technology Application in ESS *Dr. Borsdorf, Dr. Davidson*

Students will be introduced to a variety of assessment and technological applications utilized in exercise and sport science. Students will learn how to successfully integrate wellness assessment instruments with software programs to aid in data collection and analysis. Three hours per week. *Two semester hours.* (Offered spring and fall semesters.)

ESS-267. Advanced Skills in Emergency Care *Dr. Davidson*

Students will earn their instructor certification from the American Red Cross for both CPR and First Aid & Safety Training courses. Concepts for the care and prevention of athletic injuries will be reviewed. This course is specifically designed for students wishing to obtain coaching certification or for students (e.g., lifeguards, fitness supervisors) wishing to obtain advanced life support skills. Three hours per week. *Four semester hours.* (Offered fall semesters.)

ESS-270. Ergogenic Aids *Dr. Wailgum*

The effect of nutritional supplements, performance enhancing drugs, and common over-the-counter/prescription drugs on human performance will be the focus of this course. Students will examine the relationship between an ergogenic aid's benefits versus its adverse health side effects. Students will also explore the ethical implications pertaining to the use of ergogenic aids in sports. Prerequisite: ESS-100. Two hours per week. *Two semester hours.* (Offered spring semesters.)

ESS/BE-273. The Economics and Business of Sports *Dr. O'Neill*

The study of introductory economics and business using topics in sports and sports business. Professional, amateur, college and recreational sports will be analyzed. Prerequisites: Sophomore standing. Three hours per week. *Four semester hours.* (SS.)

Note: Students who have received credit for BE-211 may not enroll in ESS/BE-273.

ESS-278. Current Trends in Sports Medicine *Prof. Chlad, Dr. Wailgum*

A survey of the various types of injuries/illnesses associated with participation in competitive athletics will be identified by age groups and gender. Current NATA sports medicine treatment standards will be introduced to expand awareness of proper care of athletic-related injuries. Prerequisite: ESS 267 or permission of the instructor. Three hours per week. *Four semester hours.* (Offered even year spring semesters.)

ESS-280. Surface Anatomy: Lower Extremity *Prof. Chlad*

This course focuses on the lower extremity. It will identify selected anatomical landmarks, examine the dermatome scheme, and demonstrate proper muscle function testing for the hip, knee, ankle, and foot joints. The lumbar-sacral plexus and its peripheral innervations will be reviewed. Prerequisite: permission of the instructor. Two hours of lecture, one hour of lab. *Two semester hours.* (Offered odd year spring semesters.)

ESS-282. Surface Anatomy: Upper Extremity *Prof. Chlad*

This course focuses on the upper extremity. It will identify selected anatomical landmarks, examine the dermatome scheme, and demonstrate proper muscle function testing for the trunk, shoulder girdle, shoulder, elbow, wrist, and hand joints. The brachial plexus and its peripheral innervations will be reviewed. Prerequisite: Permission of the instructor. Two hours of lecture and one hour of lab. *Two semester hours.* (Offered odd year spring semesters.)

ESS-300. Death, Dying, and Grief: Learning to Cope with Life Experiences *Dr. Borsdorf*

This course will provide students the opportunity to openly examine a variety of grief and loss situations and to learn strategies to better cope with such events. Cross-cultural studies emphasizing non-Western cultures will be utilized to study the various types of decisions healthcare professionals and laypersons choose relative to coping with death, dying, other types of losses, and bereavement. Three hours per week. *Four semester hours.*

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(Offered even year spring semesters.) (G.)

ESS-333. Drugs & Alcohol-Use and Abuse in Modern Society *Prof. Paisley*

The significance of drug and alcohol use, misuse, and abuse in society is analyzed. Drugs and drug use today are addressed from several perspectives—historical, psychological, physiological, pharmacological, sociological, and legal. Prevention, intervention, treatment, and rehabilitation of drug and alcohol abuse is also discussed. Prerequisite: ESS-100. Four hours per week. *Four semester hours.* (Offered fall semesters.)

ESS-334. Nutrition *Prof. Chlad*

The relationship between nutrition, exercise, and weight control will be examined from various perspectives: scientific principles, consumer protection, and holistic health concepts. The course will explore the principles of nutrition and the process of metabolism. Prerequisite: ESS-100 or the permission of the instructor. Three hours per week. *Four semester hours.* (Offered both semesters.)

ESS-340. Exercise Psychology *Dr. Borsdorf*

An in-depth examination of methods used when helping people change from sedentary to active living. Topics will include the psychological antecedents and consequences of physical activity relationships, intervention programs for individuals and groups in a variety of settings, gender and age differences in motivation and exercise behaviors, communication skills, goal setting, and addictive and unhealthy behaviors. Prerequisite: ESS-100 or permission of the instructor. Three hours week. *Four semester hours.* (Offered even year fall semesters.)

ESS 351. Structural Kinesiology *Dr. Wailgum*

This course will examine how the neuromuscular and skeletal systems create volitional movement patterns. The execution of various sports skills will be utilized to identify types of joint motion, types of muscle tension, and agonist vs. antagonist muscle groups. Prerequisite: BIO-305 or permission of the instructor. Three hours of lecture and two hours of laboratory per week. *Four semester hours.* (Offered fall semesters.)

ESS-352. Exercise Physiology *Dr. Wailgum*

The study of the physiological alterations and adjustments which occur in response to physical performance. Prerequisite: BIO-306 or permission of the instructor. Three hours lecture and two hours laboratory per week. *Four semester hours.* (Offered spring semesters.)

ESS-355. Methods of Teaching Secondary Health and Physical Education *Dr. Engstrom*

This course will examine various philosophies of teaching health and physical education. Students will be introduced to various curriculum models in the discipline with special emphasis on outdoor and adventure education designs. Principles, methods, and strategies of teaching health and physical education at the secondary level will be established. Students will explore assessment strategies, unit and lesson planning, and classroom management intervention. Three hours of lecture and two hours of laboratory per week. *Four semester hours.* (Offered spring semesters.)

ESS-356. Methods of Teaching Elementary Health and Physical Education *Dr. Engstrom*

This course will investigate the history and development of teaching health and physical education. Principles, methods and strategies of teaching health and physical education at the elementary level will be established. This course includes analysis of the fundamental motor skills, examining elementary health issues and establishing developmentally appropriate instructional strategies for elementary games and gymnastics. Students will explore the spectrum of teaching styles, unit and lesson planning, and process-product analysis of learning experiences. Three hours of lecture and two hours of laboratory per week. *Four semester hours.* (Offered fall semesters.)

ESS-365. Philosophy and Principles of Coaching *Prof. Moliken*

This course is designed to develop a wholesome and positive philosophy for coaching young players. Students will learn how to teach techniques, tactics and strategies to various age groups. Organizing practices, setting individual and personal goals, evaluating players and basic administrative responsibilities will be covered. Prerequisite: ESS 100. Three hours per week. *Four semester hours.* (Offered spring semesters.)

ESS-366W. Sport Psychology *Faculty*

An examination of the critical elements of human excellence and the development of plans for obtaining

maximum performance and goals. Topics will include self-perceptions, moral reasoning levels, enhancing dedication, goal setting, stress management, personality, motivation, social relations and group dynamics. Prerequisite: ESS 100. Three hours per week. *Four semester hours.* (Offered spring semesters.)

ESS-381. Exercise Science Practicum *Faculty*

A practicum experience in a hospital, business, coaching position, clinic and/or geriatric care center under the supervision of a practicum adviser and an on-site supervisor. An inservice project is required. Each student is expected to be on-site a minimum of 160 hours per semester. Graded S/U. *Four semester hours.* (Offered spring and fall semesters.)

ESS-391. Independent Study *Faculty*

Introduction to fundamental research procedures and data manipulation in Exercise and Sports Science under the direction of a faculty member. Prerequisite ESS-100 and permission of the faculty supervisor. *One semester hour.* (Offered spring and fall semesters.)

ESS-412. Exercise Science Internship *Faculty*

A work-related experience within a Wellness/Allied Health setting, at a staff-approved site. A research paper, one oral presentation, and a minimum of one in-service presentation are required. Each student is expected to be on-site a minimum of 160 hours per semester. Prerequisite: ESS-265. Open to senior ESS majors with permission of his/her adviser. Graded S/U. *Four semester hours.* (Offered spring and fall semesters.) (I.)

ESS-446. Wellness/Fitness Program Management *Dr. Borsdorf*

A general survey of fitness, wellness, recreational movements, and programming theories relevant to these areas and their interrelationships will be explored. Particular attention will be given to methods and techniques of marketing, American College of Sports Medicine's facilities guidelines, the American Disabilities Act, and strategies for developing and implementing wellness and fitness programs. An oral presentation and a written report will be part of the course requirements. Prerequisites: ESS-100 or the permission of the instructor. Three hours per week. *Four semester hours.* (Offered fall semesters.)

ESS-447. Wellness and Fitness Throughout Adulthood *Dr. Borsdorf*

An analysis of wellness/fitness service techniques used to confront the problems and needs of various adult populations. The course will focus on the adult life cycle and its relationship to physical fitness and other wellness dimensions. Special emphasis will be placed upon identifying alterable psychological, sociological, and physiological aging processes and developing strategies for improving overall wellness during the different stages of adulthood. An oral presentation and a written report will be part of the course requirements. Three hours per week. *Four semester hours.* (D.) (Offered spring semesters.)

ESS-452. Exercise Assessment *Dr. Wailgum*

Students will be introduced to a variety of measurement tools and evaluation protocols in the field of Exercise Science to gain practical clinical experience in assessing all domains of wellness. Three hours of lecture and three hours of laboratory per week. Prerequisites: BIO-306 and ESS-352. *Four semester hours.* (Offered even year spring semesters.)

ESS-462. Administration in Exercise and Sport Science *Dr. Davidson*

A study of the administrative theory, principles, and problems in exercise and sports science. Three hours per week. *Four semester hours.* (Offered odd year spring semesters.)

ESS-464. Adapted Physical Education *Dr. Davidson*

An analysis of conditions affecting the development of children with special needs. Methods for selecting and classifying such individuals will be explored, and strategies for adapting activities to meet the needs of differently-challenged individuals will be addressed and experienced. ESS major or permission of instructor. Three hours per week. *Four semester hours.* (Offered even year spring semesters.) (D.)

ESS-465W. Health and Physical Education Teaching Seminar *Dr. Engstrom*

Readings, discussions, and individual research focused on pedagogy, measurement and evaluation, or some other facet of teaching health or physical education. At the conclusion of the seminar, students will present a research paper at an open meeting of the department. Prerequisite: This course can only be taken in conjunction with Education 405 and requires permission of the department. One hour per week. *One semester*

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hour. (Offered fall semesters.) (I.)

Note: ESS-465 would be an elective course taken concurrently with EDUC-405. Students in the teaching track not selecting ESS-465 could complete the capstone requirement by scheduling.

ESS-491W. Research/Independent Work Faculty

This course is open to candidates for departmental honors and to other students with a special interest in the field of exercise and sport science. Prerequisite: ESS-265 and the permission of the departmental chair and project adviser. *Four semester hours. (Offered spring and fall semesters.) (I.)*

ESS-492W. Research/Independent Work Faculty

A continuation of ESS-491. Prerequisite: ESS-491. *Four semester hours. (Offered spring and fall semesters.) (I.)*

Film Studies

Professor Dole; Associate Professor Mizenko; Assistant Professors Garcia, Gatewood

The Film Studies minor is designed to help students achieve a critical and historical understanding of cinema, an art form of growing importance in a media-dependent world. The minor includes study of how film form produces meaning, an examination of the relationship between cinema and culture, and an introduction to the historical development of cinema. The program encourages students to engage in analysis and critique of a range of films, both classic and contemporary, from Hollywood, other national cinemas, and independent filmmakers.

Requirements for Minors

A minor in film studies consists of Film Studies 101, 235, 250, 305, and one additional course in Film Studies or MCS 225.

FS-101. Introduction to Film Studies *Dr. Dole*

The usual first course in a film studies minor, introducing students to analysis of film through style and form. Includes basic elements of the development of film conventions as well as an introduction to connections between style and ideology. Intended primarily for freshmen and sophomores. Three hours lecture and a two-hour screening per week. *Four semester hours. (H.)*

NOTE: Students who have previously taken ENGL/MCS-280 may not take FS-101.

FS-235 History of Film *Faculty*

The evolution of film from the silent era to the present, including both Hollywood film and the global film movements among which it developed. Three hours lecture and a two-hour screening per week. *Four semester hours. (H.)*

FS-250. Topics in National Cinema *Faculty*

An overview of a national or regional cinema other than the United States. Three hours lecture and a two-hour screening per week. *Four semester hours. (H.)*

FS-251 Topics in Film Genre *Faculty*

A study of the production and consumption of films within a familiar form such as the musical, Western, or detective film. Three hours lecture and a two-hour screening per week. *Four semester hours. (H.)*

FS--252 Topics in Film and Identity *Faculty*

Representations in American cinema of groups as categorized by gender, race, or ethnicity. Three hours lecture and a two-hour screening per week. *Four semester hours. (D.,H.)*

FS-253 Special Topics in Film Studies

Focus on a specific topic within film studies not covered in other courses in the curriculum. Three hours per

week. *Four semester hours.*

FS-305 Film Theory and Criticism *Faculty*

Theoretical approaches to the analysis of film. Prerequisite: FS 101 or ENGL/MCS 280. Three hours per week. *Four semester hours. (H.)*

FS-381. Internship

An off-campus experience under the supervision of a faculty advisor and an on-site supervisor. Includes periodic meetings with the faculty advisor and completion of an approved research project. Prerequisite: declared minor in film studies and three courses completed in the program. Junior standing and approval of a faculty internship advisor. Must complete a minimum of 160 hours. Graded S/U. *Four semester hours. (I)*

FS-390 Research in Film Studies.

Readings and independent research under the supervision of a faculty advisor. A final product on a specific topic in film studies is required. Prerequisite: three courses in film studies, demonstrated competence in the specific area of study, a written project proposal, and permission of a program faculty member who will serve as project advisor. *Four semester hours.*

Gender and Women's Studies

Professors Czubaroff, Dole, E. Dawley (*Advisory Council*), Hemphill, Lionarons, Novack, Oboler and Trout; *Associate Professors* Evans (*Advisory Council Chair*), Florka (*Advisory Council*). Von Schlegell

Gender and Women's Studies is an interdisciplinary minor which places the study of women and gender at the center of the curriculum. It is designed to include a cross-cultural perspective in an examination of the experiences and contributions of women, as well as to explore the challenges and limitations due to gender.

Requirements for Minors

A minor concentration in Gender and Women's Studies consists of 16 credits. All students must take GWMS-200 Gender and Women's Studies. The remaining credits must come from the following: GWMS/ANTH-225, GWMS/SOC-227, GWMS/SOC-263, GWMS/EDUC-402, GWMS/ENGL-228, GWMS/ESS-301, GWMS/HIST-328, GWMS/HIST-366, GWMS-381, or GWMS-382. (Credit for only one internship, either GWMS-381 or GWMS-382, counts toward the minor.) Seminars, special topics courses, and up to four credits of independent study projects above the 100 level which deal with Gender and Women's Studies may be substituted for the courses listed above with the approval of the course instructor and the coordinator of Gender and Women's Studies.

GWMS-200. Gender and Women's Studies *Von Schlegell*

An interdisciplinary course to promote an awareness and understanding of women's and men's potential and options in our society. Readings in feminist theory, films, novels, and discussion of the history of the women's movement, race, sex and gender, and the roles of men in society. Emphasis on women and religion. Open to freshmen. Three hours per week. *Four semester hours. (D)*

GWMS/ANTH-225. Gender and Kinship Cross-Culturally *Dr. Gallagher, Dr. Oboler*

The structure of sex and gender roles has important implications for marriage, the family, and kinship in all societies. This course examines sex and gender roles, sexuality, mate selection, marriage customs, divorce, childbearing, parenting, spousal and other kin relations, across the spectrum of world cultures. Prerequisite: any 100-level course in anthropology and sociology or written permission of the instructor. *(SS.)*

GWMS/SOC-227. Marriage and the Family *Dr. Oboler, Dr. Gallagher*

This course examines transitions, continuity, and variations in marriages and families in the 20th century United States, with some historical, cross-cultural, and cross-national comparisons. The implications of shifts in public policy for "traditional" and non-traditional families are considered, as well as possible and

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probable future change in family patterns. Prerequisite: ANTH-100 or SOC-100 or written permission of the instructor. Three hours per week. *Four semester hours.* (SS, D.)

GWMS/ENGL-228. Women's Literature *Dr. Dole, Dr. Lionarons, Dr. Schroeder*

A cross-period study of literature by British and American women, paying attention to issues of canon formation and feminist literary theory. Prerequisite: CIE-100. Three hours per week. *Four semester hours.* (H.)

GWMS/SOC-263. Gender in Contemporary Society *Faculty*

After initial examination of the causes of sex differences, focus is placed on the modern American sex/gender role system: socialization and education; economic, political, religious, and family roles; sexual inequality; and gender-based public policy issues. Some cross-cultural and cross-national comparisons are made. Prerequisite: ANTH-100 or SOC-100 or written permission of the instructor. Three hours per week. *Four semester hours.* (SS.)

GWMS/SOC-264. Gender, Race and Work *Faculty*

This course examines the intersection of race and class relations as they affect the work trajectories and experiences of women in the United States. According to various social indicators, women and their children remain disproportionately poor, and many women are undereducated and unemployed. These facts have led some social scientists to posit that poor women and children in the U.S. are becoming a seemingly permanent urban underclass. This course explores the way in which the intersection of systems of social organization (race, class, work and gender) operates as a "containment field" so that certain workers do not have legitimate access to power. Prerequisite: any 100-level course in Anthropology or Sociology, or permission of instructor. Three hours per week. *Four semester hours.* (SS.)

GWMS/HIST-328. Women in American History *Dr. Hemphill*

An examination of the changing experience of American women from colonial times to the present. The focus of this course will be the interaction of that experience with ideal roles for women in the realms of family, religion, politics, economics, and social life. Attention will also be paid to the interaction of gender with the variables of class, race, ethnicity, and region. Three hours per week. *Four semester hours.* (H.)

GWMS/HIST-366. History of the Family *Dr. Hemphill*

A survey of the changing structure and function of the family in Europe and America from 1500 to the present. Special attention will be paid to the relationship between changes in the family and changes in the wider society; the family as the locus for changing gender and age relations; and the variations in family forms dictated by class, race, ethnicity, religion, and region. Three hours per week of lectures and discussion. *Four semester hours.*

GWMS-370. Research-Independent Study *Faculty*

Directed readings and research on a topic in Gender and Women's Studies. A student wishing to register for this course must present to a member of the faculty a proposal outlining research to be completed, and submit the instructor's written agreement to supervise the project to the chair of the GWMS Advisory council. Prerequisites: GWMS-200 and status as a GWMS minor. *Four semester hours.* (I.)

GWMS-375. Readings in Gender and Women's Studies *Faculty*

In this directed readings course a student can further develop an interest begun in another course or explore an interest within the field of Gender and Women's Studies not otherwise covered in the curriculum. A student may do independent readings with any member of the GWMS faculty, but must submit in advance the instructor's written agreement to supervise the project to the GWMS Advisory Council. Prerequisite: GWMS-200. *Two semester hours.*

GWMS-381. Gender and Women's Studies Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact the Gender and Women's Studies Advisory Committee Chair for further details. Prerequisites: Junior standing, GWMS-200, and approval of a faculty internship adviser. One hundred and twenty (120) hours. *Three semester hours.*

GWMS-382. Gender and Women's Studies Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact the Gender and Women's Studies Advisory Committee Chair for further details. Prerequisites: Junior standing, GWMS-00, and approval of a faculty internship adviser. One hundred and sixty

(160) hours. *Four semester hours. (1.)*

GWMS/EDUC-402. Identity and Diversity. *Faculty*

Analysis and exploration of individual influences and filters regarding racial and gender identity issues through examining and exchanging multiple viewpoints and perspectives in preparation for diversity in Education-based professions, with particular emphasis on teaching. An emphasis of the course will be on multicultural education, bilingual education, and special education. Field work required. Prerequisite: Education 202. Three hours per week. *Four semester hours. (SS, D.) (SS, D.)*

Geography

GEOG-102. Geography *Faculty*

Study of the major regions of the world. The purpose is to analyze each from the standpoint of climate, natural resources, and economic problems, and to give the student a fairly detailed knowledge of the physical geography of the regions. Three hours per week. *Three semester hours.*

Geology

The science of geology presents to the student the physical nature and history of the earth and their relationship to the cultural, economic and political concerns of man.

ENV/GEOL-101Q. Geology: The Earth Around Us. *Dr. Joseph, Faculty*

This course examines the current state of knowledge about the Earth and investigates the forces and processes that shape it. Topics include the formation of the Earth and solar system, the materials that comprise the Earth, the forces that currently act on, around, and within the planet, and the relationship of these forces to the processes and features we observe and/or experience at the Earth's surface. To address complex and dynamic geologic processes, this course utilizes knowledge and methods from several disciplines in addition to geology, including biology, math, physics, and chemistry. Three hours of lecture and three hours of laboratory per week. *Four semester hours. (LS.)*

GEOL/ENV-105Q. Environmental Geology. *Dr. Joseph, Faculty*

An introduction to environmental geosciences. Includes a study of the earth's environmental systems: lithosphere, hydrosphere, atmosphere, mineral resources, weathering, soils, rivers and flooding, ground water, climate, oceans and coastline erosion, energy sources, human populations, and environmental change. Three hours of lecture and three hours of laboratory per week. *Four semester hours. (LS.)*

History

Professors Clark, Doughty (Chair), Hemphill, Strassburger; Associate Professor King; Assistant Professor Greason

History at Ursinus explores the dynamic interplay between the past and the present. Rather than simply master facts, students of history learn to think critically, including questioning how history itself is constructed. Our goals are to provide a solid foundation in research methodology; to foster comprehensive reading, writing, and analytical skills; and to cultivate the global and multicultural perspectives that are necessary to understand the human condition and contemporary world affairs.

Moreover, emphasizing history's connection to the present enables our majors and minors to enter a variety of career fields. Equipped with superior communication skills and internship experiences, graduates from our program have gone on to pursue careers in law, business, government, the foreign service and journalism.

Those who wish to continue in history find opportunities in high school and college teaching as well as historical preservation in museums, historic sites, archives and libraries. In pursuing these careers, the majority of history alumni go on to graduate degrees. The History Department seeks to endow all students, whatever their path, with a consciousness of history and its critical skills. We view this as a vital part of a truly liberal education.

Requirements for Majors

History majors must take a minimum of ten courses in History, at least four of which must be at the 300 level. The following requirements must be fulfilled: History 200W; two courses in United States history (213, 214, 220, 222, 223, 321, 322, 323, 327, 328, 329); two courses in European history (205, 206, 207, 304, 305, 306, 308); two courses in non-Western history (241, 243, 253, 331, 341, 342, 344, 345, 353); two courses in comparative history (261, 262, 361, 362, 365, 366, 368); and one 400-level capstone course.

All History majors are strongly encouraged by the department to participate in an approved study abroad program or to take History 381 (History Internship) or other internship course. History courses taken abroad may be counted to fulfill department requirements.

Concentration Option

Concentrations are not a requirement for history majors. The Concentration Option is for students who wish to pursue study in an area or topic in greater depth, including students who are considering graduate study in history or a related discipline. Concentrations will consist of three courses beyond the department's core requirements, for a total of five courses in the Concentration area.

Concentration Options Include:

- **Concentration in African and African-American history:** (213, 214, 222, 223, 321, 322, 323, 327, 329, 331, 362)
- **Concentration in American history:** (213, 214, 222, 223, 321, 322, 323, 327, 328, 329)
- **Concentration in East Asian history:** (241, 243, 341, 342, 344, 345, 361)
- **Concentration in European history:** (205, 206, 207, 304, 305, 306, 308, 361, 368)
- **Concentration in World/Comparative history:** (207, 253, 261, 262, 331, 361, 362, 365, 366, 368)
- **Student-initiated Concentration:** Two courses in a specific area selected from the department's core requirements, plus three additional courses appropriate to the concentration.
(Concentration and specific courses to be approved by the Chair of the History Department.)

Note: With departmental permission, a student may substitute one course from outside the History department in fulfillment of a Concentration. Also, History 300 (Special Topics), 381 (Internship), 400W (Research), 491-492W (Honors), and/or a 400-level seminar may be included in a Concentration, when appropriate.)

Special Career Interests

Graduate Study in History

Students seeking admission to graduate programs in history should consider undertaking independent research and specializing in an area or period in addition to the requirements of the history major. Possible area specializations include: African-American history; American history; Comparative or World history; East Asian history; and European history.

Careers in the Law

Students who plan to seek admission to law school should acquire a faculty Pre-legal adviser. There are no specific course requirements, but prospective law students should choose electives that sharpen their reading, writing, speaking, and reasoning skills. They should also consider independent research.

Careers in Teaching

Students interested in teaching history or social studies at the secondary school level should inform their faculty advisers and consult the Ursinus College Education Department. Students seeking secondary school teaching certification in social studies must include HIST-262 in their curriculum. In addition, teaching candidates must take BE-100; PSYC-100 and PSYC-265; POL-218 and one additional Politics course; one Anthropology course; one Sociology course; and seven Education courses, including EDUC-405 (Student Teaching).

Careers in Public History

Students wishing to pursue a career in public history, including historical preservation and museum studies, should take ART-360 and pursue historic site internships. They should also consider an area or period specialization in addition to the requirements of the history major.

Requirements for Minors

Students seeking a minor in history must take a minimum of five courses in the department, at least one of which must be at the 300 or 400-level. Students interested in a history minor must register with the department chair to discuss their particular interests and goals and plan a course of study.

Note: All 200-level History courses are open to first-year students. First-year students may also be admitted to 300-level courses, with the permission of the History Department. History 150, 200W, 207, 213, 214, 261 and 262 are offered annually, while History 381 (History Internship) is offered every semester. Other history courses are offered every other year.

HIST-150. Historical Investigations *Faculty*

Students will practice the historian's craft by working with a professor investigating a specific historical problem. Topics will vary with the instructor. Depending on the topic, oral history, archaeological, literary, cinematic, and internet sources may be used, in addition to more traditional documentary sources. Students will hone their critical reading, analytical and writing abilities. This course is an excellent introduction for students considering the History major, but is designed for any student with an interest in research and will help develop skills useful to all majors. Open to all first-year students, or sophomores by special permission of department chair. Three hours per week. *Four semester hours. (H and D or G, if so designated, contingent upon the topic.)*

HIST-200W. Historiography *Faculty*

An introduction to the craft and discipline of History. The course combines readings by great historians on their method with a focused excavation of at least one historical topic of the instructor's choosing through close reading of primary and secondary sources. Students will be required to do extensive writing and revision of papers. Prerequisite: Sophomore standing or permission of the instructor. Three hours per week. *Four semester hours.*

HIST-205. Russia and The USSR *Dr. King*

An examination of major political, social, economic, and cultural themes in the history of Tsarist Russia and the Soviet Union. Four hours per week. *Four semester hours. (H, G.)*

HIST-206. Europe in Revolution *Dr. Doughty*

A study of the origins, nature and consequences of the English, French and Industrial Revolutions and their

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impact on Europe and the Americas. Topics include the English Civil War, Louis XIV; Napoleon; the social effects of industrialization and the development of parliamentary democracy in Britain. Significant time will be devoted to historiography. Four hours per week of discussion of assigned reading. *Four semester hours.* (H.)

HIST-207. The Global Era *Dr. Doughty*

A survey of international relations and their domestic political, social and economic background, c. 1890 to the present, with particular emphasis on the origins and consequences of the two World Wars, the Cold War and the problems of the emerging global economic and political system of the post-Cold War era. Four hours per week. *Four semester hours.* (H, G.)

HIST-213. American History, 1500-1877 *Dr. Hemphill*

A survey of American history from the collision of Indian, African and European cultures in the sixteenth and seventeenth centuries through the formation of the United States of America from thirteen British colonies, to the maturation and testing of that nation in the Civil War era. Emphasis will be on the diversity of American experience and historical debates on key issues. Three hours per week of discussion of readings. *Four semester hours.* (H, D.)

Note: Not open to students who have taken History 221.

HIST-214. Modern American History, 1877-Present *Dr. Greason*

A survey of modern American history that emphasizes "history from the bottom up." Notions of race, gender, and labor will be used as means to examine the historical experiences of everyday Americans. This course also studies how everyday people shaped the development of the United States. Readings will draw from primary and secondary material. Three hours per week. *Four semester hours.* (H, D.)

Note: Not open to students who have taken History 221.

HIST-220. Philadelphia Story: The City as Text *Dr. Hemphill*

This course uses the city of Philadelphia as a laboratory for examining the American experience. Among other issues, it considers Philadelphia as the locus for the founding of the American political system, as a primary destination for European and African-American migrants, and as a place to examine the urban challenges of poverty, crime, epidemics, and racial or ethnic conflict. In addition to discussing a variety of primary and secondary source readings, we will attempt to read the city itself- its buildings, murals, market-stalls and neighborhoods- for clues to the American urban experience. Three hours per week, plus field trips. *Four semester hours.* (H, D.)

HIST-222. African American History I *Dr. Greason*

An introduction to the African American communities in the Western Hemisphere, particularly North America, from 1528-1790. Topics to be covered may include, among others, early modern West Africa, the transatlantic slave trade, indentured servitude, various forms of chattel slavery, maroon communities, the development of race, gender in the British North American colonies, the American Revolution, and the development of the American constitution. Three hours per week. *Four semester hours.* (H, D.)

HIST-223. African American History II *Dr. Greason*

An introduction to the African American communities in the United States from 1790-present. Topics to be covered may include, among others, gradual emancipation and abolitionism; the changing role of African Americans in the American economy; domination, accommodation, and resistance in daily life; religion and education among African Americans, the confluence of racism, slavery, and segregation; scientific racism; black nationalism; the Civil War; civil rights and racial integration; corporate and governmental visions of racial equality; and the media's role in race relations. Three hours per week. *Four semester hours.* (H, D.)

HIST-241. Society and Culture of China *Dr. Clark*

A survey of Chinese history from the Song dynasty to the present, with particular emphasis on social and cultural developments, the growth of the traditional order, consequences of European contact, and the trials and revolutions of the twentieth century. Readings will draw on a mixture of primary and secondary material, including contemporary monographs, novels, and other forms of literature. Four hours per week. *Four semester hours.* (H, G.)

HIST-243. Society and Culture of Japan *Dr. Clark*

A survey of Japanese history from the origins of the Japanese state through World War II and the American

Occupation. Particular attention will be devoted to economic, social and cultural developments of the late traditional period (1600-1868) as precursors to the twentieth-century transformations. Readings will draw on a mixture of primary and secondary material, including contemporary monographs, novels, and other forms of literature. Four hours per week. *Four semester hours.* (H, G.)

HIST-253. The Middle East *Dr. King*

An introduction to Middle Eastern societies and civilizations from the founding of Islam to the problems of the contemporary Middle East. Four hours per week. *Four semester hours.* (H, G.)

HIST-261. The Pre-Modern World *Dr. Doughty, Dr. King*

A comparative survey of the origins, development and achievements of the world's major civilizations, to c. 1500 C.E., with emphasis on the study of their ideas and institutions; the cultural, economic and social interactions among their respective peoples; and environment on their development. Three hours per week. *Four semester hours.* (H, G.)

HIST-262. The Modern World *Dr. Doughty, Dr. King*

A comparative survey of the development and transformation of the world's major civilizations in the modern era (c. 1500 to the present), with emphasis on the process of social, economic and political change; on the "Rise of the West" to global dominance and its impact on other societies; and on the influence of geography, climate and environment on the history of the modern world. Three hours per week. *Four semester hours.* (H, G.)

HIST-299. History Tutorial *Faculty*

Individual study and directed reading on a selected topic in the historical literature and preparation of a critical bibliography of the works read. Open only to students majoring in history. Prerequisites: History 200 and prior consent of a member of the history department who agrees to serve as tutor. One hour per week. *One semester hour.* Offered as requested.

HIST-300. Special Topics in History *Faculty*

An elective course dealing with special subject areas and periods. Three hours per week. (Not offered on a regular basis.) *Four semester hours.* (H (H); and D or G, if so designated, contingent upon the topic.)

HIST-304. European Religious Wars, 1054-1648 *Dr. King*

This course examines religious conflict in Europe and its impact on political, social, economic, and cultural developments from the Schism of 1054 through the Thirty Years' War. Among the conflicts that will be studied in depth are the Crusades, medieval heresies and social reform movements, and the Protestant and Catholic Reformations. Significant time will be devoted to the historiography of the period. Three hours per week. *Four semester hours.* (H.)

HIST-305. The Devil in Europe: Witchcraft and Society, c. 1450-1750 *Dr. Doughty*

A study of the origins and dynamics of the witch-hunt in Europe, as a vehicle for examining early modern society and culture. Topics to be studied will include the origins of village and learned witchcraft beliefs; the effects of religious and economic change; the role of gender in accusations and trials; Devil-worship and the witches' sabbat; and the reasons for the decline of the persecutions. Significant time will be devoted to the historiography of the topic. Three hours per week. *Four semester hours.* (H.)

HIST-306. Ideas and Ideologies *Dr. King*

An exploration of selected movements in the history of modern European political and social thought. Specific content may vary but will include such topics as liberalism, nationalism, racism, and socialism. Extensive readings in original sources, written analyses, and discussion. Three hours per week. *Four semester hours.* (H.)

HIST-308. Nazi Germany and the Holocaust *Dr. Doughty*

A study of the rise of Adolf Hitler and the National Socialist Party, the structure and dynamics of the "Hitler State," German society under the Nazis, and the origins and implementation of the racial and foreign policies of the Third Reich. Significant time will be devoted to the historiographical questions concerning the social and political background of Nazism, the role of Adolf Hitler in the Nazi state, the status of women in Nazi Germany, anti-Semitism in European society, and the planning and implementation of the Holocaust. Three hours per week. *Four semester hours.* (H.)

HIST-321. Colonial America *Dr. Hemphill*

This course will explore the colonial experience in North America. The settlement and evolution of the British

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colonies in a larger Atlantic world provides the primary framework for the study of the experience of the many peoples — Indian, African, and European — who met and struggled in this context. Readings will draw on a mixture of primary and secondary material. Three hours per week of discussion. *Four semester hours. (H, D.)*

Note: This course will be offered every third year, in rotation with 322 and 323.

HIST-322. Revolutionary America *Dr. Hemphill*

This course will examine the American War for Independence from Great Britain and the political, social and economic revolutions that accompanied it. Using both primary documents and recent scholarship, we will examine the transformation of American society from 1750 to 1820. Three hours per week of discussion of the readings. *Four semester hours. (H, D.)*

Note: This course will be offered every third year, in rotation with 321 and 323.

HIST-323. Civil War America *Dr. Hemphill*

This course on America's "testing time" will begin with an exploration of conditions in American society after c. 1820 that gave rise to the American Civil War (especially the institution of slavery and the cultural, economic and political divergence of the North and South). It will then consider the war experience from military, political and home front perspectives, concluding with the aftermath of war in the Reconstruction era. Readings will draw on a mix of primary and secondary material. Three hours per week. *Four semester hours.*

Note: This course will be offered every third year, in rotation with 321 and 322. (H, D.)

HIST-327. Topics in Modern United States History *Dr. Greason*

A detailed inquiry into the United States from 1920-2000. Topics to be covered may include, among others, urbanization, industrialization, family and societal gender roles, communication and transportation systems, public policy and the practice of democracy. Three hours per week. *Four semester hours. (H, D.)*

HIST/GWMS-328. Women in American History *Dr. Hemphill*

An examination of the changing experience of American women from colonial times to the present. The focus of this course will be the interaction of that experience with ideal roles for women in the realms of family, religion, politics, economics, and social life. Attention will also be paid to the interaction of gender with the variables of class, race, ethnicity, and region. Three hours per week. *Four semester hours. (H, D.)*

HIST-329. Topics in African American History *Dr. Greason*

A detailed study of the African American communities in the Western Hemisphere, particularly North America, from 1528-present. Topics to be covered may include, among others, American slavery, Jim Crow segregation, the Civil Rights Movement, the evolution of womanism, and African Americans in entertainment. Three hours per week. *Four semester hours. (H, D.)*

HIST-331. Topics in African History *Dr. Greason*

A detailed analysis of the diversity of the African continent since 1400. Topics to be covered may include, among others, the empires of West Africa, African slavery and the transatlantic slave trade, the Dutch and British Cape Colony, European colonization, and the independence movements of the twentieth century. Three hours per week. *Four semester hours. (H, G.)*

HIST-341. An Historical Introduction to East Asian Thought *Dr. Clark*

An introduction to the great texts of the East Asian philosophical tradition. Readings will focus on the original texts of Confucianism, Daoism, Legalism, and the other traditions, as well as later commentaries, and will be supplemented with appropriate contemporary monographs. Three hours per week. *Four semester hours. (H, G.)*

Note: Not open to students who have taken History 343.

HIST-342. An Historical Introduction to East Asian Religion *Dr. Clark*

An introduction to the religious traditions of China and Japan, including China's pre-imperial religious heritage, Buddhism, Daoism, and Shinto. Readings will emphasize primary source texts and will be supplemented with appropriate contemporary monographs. Three hours per week. *Four semester hours. (H, G.)*

HIST-344. The Vietnam Wars *Dr. Clark*

An examination of post-colonial conflict in Vietnam from the mid-19th century through 1975. We will approach the narrative from the perspective of the Vietnamese in an attempt to understand the domestic stresses, resulting from both internal and external change, which produced the post-World War II upheavals, as well as the motivations of the Western powers that intervened. Three hours per week. *Four semester hours. (H, G.)*

HIST-345. Women in East Asian Culture *Dr. Clark*

An historical overview of the position of women in East Asian culture from the early modern era to the recent past. Attention will be devoted to topics such as marriage, motherhood, family structure, economic opportunity, women's writing, women and religion, etc. In addition to contemporary monographs, readings may include novels, plays, poetry, as well as movies. Three hours per week. *Four semester hours.* (H, G.)

HIST-353. The Arab-Israeli Conflict *Dr. King*

This course will examine the origins and historical development of one of the most bitter and long-lasting disputes of the last century. Using a combination of primary sources and scholarship, we will investigate the impact that this conflict has had on Middle Eastern politics, on international relations, and on the problem of human rights. Three hours per week. *Four semester hours.* (H, G.)

HIST-361. East and West in the 13th Century *Dr. Clark*

A comparison/contrast of China and Western Europe on the eve of such events as the Mongol invasions, the Black Death, and the like. The course will focus particularly on economic, social and institutional structures. Three hours per week. *Four semester hours.* (H, G.)

HIST-362. African Journeys in the Modern World *Dr. Greason*

A detailed, comparative study of the African diasporas across both the Atlantic and Indian Oceans after 1400. Topics to be covered may include, among others, the varieties of human slavery, African cultures on the continent, in India, the Caribbean, Latin America, Canada, Western Europe, and the United States, religious and linguistic diversity among global Africans, Pan-Africanism, and negritude. Three hours per week. *Four semester hours.* (H, G.)

HIST-365. Empires and Nations *Dr. King*

A comparative history of the emergence of nationalism among the subject peoples of multinational empires in the nineteenth and twentieth centuries: Western Europe's overseas empires, the Russian/Soviet empire, the Austrian Empire, and the Ottoman Empire. The course will focus on theories of imperialism and of nationalism, and on the perspective of the societies struggling for national independence. Three hours per week. *Four semester hours.* (H, G.)

HIST/GWMS-366. History of the Family *Dr. Hemphill*

A survey of the changing structure and function of the family in Europe and America from 1500 to the present. Special attention will be paid to the relationship between changes in the family and changes in the wider society; the family as the locus for changing gender and age relations; and the variations in family forms dictated by class, race, ethnicity, religion, and region. Three hours per week of lectures and discussion. *Four semester hours.* (H, D.)

HIST-368. Warfare and Society *Dr. Doughty*

A comparative study of military organization and warfare, in its social and cultural context, from c. 500 BCE to the present. The interrelationships between warfare, technology, government and society will be studied, using case studies from ancient Greece to the Gulf War and modern terrorism. Europe, North America, Japan and the Middle East are areas which will be studied in detail. Three hours per week. *Four semester hours.* (H, G.)

HIST-381. History Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact the chairman of the department for further details. Prerequisites: 12 credits in history and approval of a faculty internship adviser. *Four semester hours.* (I.)

HIST/ANTH-385. Historical Archaeology Field School *Staff*

A six-week summer archaeology course offered in conjunction with The Speaker's House foundation at the Frederick Muhlenberg house site in Trappe, Pennsylvania. The field school course in Historical Archaeology will combine instruction in archaeological methods and theory with hands-on excavation training and experience at an important historical site. Through assigned readings and classroom discussions, on-site training and experience, and weekly laboratory study, field school students will learn historical archaeology techniques and develop the ability to identify and interpret discovered artifacts and place archaeological information within a cultural/historical framework. *Six semester hours.*

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HIST-400W. Research *Faculty*

Independent research, under the guidance of an adviser, directed toward the production and oral presentation of a historical project or paper. Prerequisite: HIST-200W or equivalent. (Offered as needed) *Four semester hours. (I.)*

HIST-401W. Seminar in European History *Faculty*

Readings and individual research on topics of European history, leading to preparation, oral presentation and discussion of research papers. Open to third- and fourth-year students. Prerequisite: History 200W or equivalent. Three hours per week. *Four semester hours. (H.)*

HIST-421W. Seminar in American History *Faculty*

Readings and individual research on topics of American history, leading to preparation, oral presentation and discussion of research papers. Open to third- and fourth-year students. Prerequisite: History 200W or equivalent. Three hours per week. *Four semester hours. (H.)*

HIST-442W. Seminar in East Asian, Middle Eastern, or African History *Faculty*

Readings and individual research on topics of non-Western history, leading to preparation, oral presentation and discussion of research papers. Open to third- and fourth-year students. Prerequisite: History 200W or equivalent. Three hours per week. *Four semester hours. (H.)*

HIST-462W. Seminar in Comparative History *Faculty*

Readings and individual research on topics in comparative history leading to preparation, oral presentation and discussion of research papers. Open to third- and fourth-year students. Prerequisite: History 200W or equivalent. Three hours per week. *Four semester hours. (H.)*

HIST-491W. Research/Independent Work *Faculty*

This course is open to candidates for departmental honors and to other students with the permission of the department chair. Prerequisites: History 200W and the permission of the department. *Four semester hours. Note: HIST-491 does not fulfill the capstone requirement. (I.)*

HIST-492W. Research/Independent Work *Faculty*

A continuation of HIST-491W. Open only to candidates for honors. Prerequisites: HIST-491W and permission of the department. *Four semester hours. (I.)*

Interdivisional Studies

IDS-099. Topics in Diversity *Faculty*

The exploration of readings, other texts, traditional or not, and activities related to diversity. Sample topics are issues concerning race, ethnic identity, sexual orientation, gender, or religion. This course is graded S/U. One hour per week. *One semester hour.*

IDS-101. World Literature I: The Literary Tradition *Faculty*

Critical reading of selected representative works from Western and non-Western literatures from early civilization through the European Renaissance. The epic and drama will be emphasized. Three hours per week. *Four semester hours. (See also Ursinus in Sevilla program) (H.)*

IDS-102. World Literature II: Topics in Comparative Literature *Faculty*

Critical reading of selected works, with emphasis on 19th- and 20th-century non-Western literatures, in a comparative and pluralistic context. Three hours per week. *Four semester hours. (H, G.)*

IDS-110. Topics in Interdivisional Studies *Faculty*

This course will focus on a topic that is interdisciplinary in nature and is not covered in a similar fashion in other courses in the curriculum. Topics will vary, and students may repeat course when topics differ. Four hours per week. *Four semester hours.*

IDS-151Q. Interdisciplinary Science: Life's A Risk *Faculty*

A study of risk analysis for living in a hazardous world. Of interest to anyone who hopes to eat, breathe, travel or reproduce, and live to tell the tale. Readings from the scientific and popular literature; laboratories on risk assessment. This course may be used to satisfy the laboratory science requirement. Three hours of lecture; three hours of laboratory per week. *Four semester hours.*

IDS-201, 202, 203. Independent Study *Faculty*

Guided independent study involving more than one academic discipline for sophomores, juniors, seniors and second-semester freshmen. Projects will result in a major paper or creative project. The project proposal requires two faculty sponsors. *Four semester hours. (1.)*

IDS-290. Writing Fellows *Dr. Fritz*

This course will prepare students to work as Writing Fellows, either in the writing center or as aides to faculty in Writing Intensive courses. Prerequisite: CIE-100 and permission of the instructor. Three hours per week. *Four semester hours.*

IDS-301. Directed Readings *Faculty*

This course can be taken either as an individualized tutorial or as a group readings course. Students and faculty collaborate in designing a reading list of interdisciplinary materials and writing projects appropriate to the number of semester hours for which the course is being taken (eight to ten pages of formal and informal writing per credit hour). Permission of instructor required. *Two to four semester hours.*

IDS/SPAN-332. Latin American Studies (see also Spanish) *Dr. Cameron*

An interdivisional approach to the study of Latin America. The development of the history, politics, society and literature of Latin American nations will be examined. Readings will be selected from the works of major intellectual figures and writers. Emphasis will be on the 20th century. Weekly lectures, films, and class discussions. The language of instruction is English. Open to upper class students. Four hours per week. *Four semester hours.*

IDS-350. Human Sexuality *Faculty*

A study of the development and expression of human sexuality through the ages and through the lifespan of the individual. Alternate orientations, variances and sexual dysfunctions, disorders and diseases are also considered. Prerequisites: Biology 101Q and Psychology 100 or permission of the instructor. Three hours per week. *Four semester hours.*

IDS-491. Research/Independent Work *Faculty*

Individual investigation of an interdisciplinary topic. Open to candidates for interdepartmental honors and to other students. Permission of two department chairs required. *Four semester hours.*

IDS-492W. Research/Independent Work *Faculty*

Continuation of IDS-492. *Four semester hours.*

International Studies Certificate

International Studies is an interdisciplinary program that provides an opportunity to explore cultures and issues beyond the United States. To appreciate, understand, and interact in a global community students need to explore other nations and cultures from various perspectives. Students understand other nations through courses that cover the historical developments of a nation, the political organizations that rule a country or countries, the economic systems that distribute resources, and the social organizations that support the cultural norms. It is equally essential for students to develop a willingness to understand how people from a different culture think and behave in order to communicate effectively with them. In order to be effective global citizens, we must be able to recognize that there are issues that go beyond our borders and require us to apply our understanding of culture and peoples.

The International Studies Certificate (ISC) is designed to complement a student's major. The interdisciplinary nature of the certificate requires students to take a diverse set of courses in order to meet the goal of understanding nations, peoples, and issues. Students are also asked to have an independent learning experience that is international in scope.

Students are required to take 28 credit hours, with no more than 8 credit hours taken from a single department or in the student's major. At least two courses must be "G" courses. There are

three components of the Certificate:

A. Internationally Focused Courses. A student must take 24 credits of internationally focused courses. These courses focus on countries, peoples, organizations, systems, or societies outside of the United States: ANTH-100, ANTH-225, ANTH-232, ANTH-242, ANTH/ENV-352, SOC-237, BE-260, BE-361, BE-362, BE-363, EAS-224, EAS-314, HIST-205, HIST-206, HIST-207, HIST-241, HIST-243, HIST-253, HIST-262, HIST-341, HIST-342, HIST-344, HIST-345, HIST-362, HIST-365, IDS-102, JPN 300 and 400 level courses, MCS-350, all Modern Language courses above 112, POL-242, POL-252, POL-343, POL-344, POL-345, POL-346, POL-347, POL-348, POL-349, POL-350A/B, POL-353, POL-355.

B. Global Issues Courses. A student must take 4 credits of courses that address global issues or have global ramifications: ENV-100, POL-357, POL-399 (Human Rights), SOC-263, HIST-353, HIST-368, PHIL/ENV 248, RELS-211, RELS-336.

C. Independent Learning Experience (ILE). Students must either study abroad or complete an internship in a program approved by the International Education Committee. The internship may be conducted abroad or with a domestic company or organization that has a significant international orientation. Students are required to document their experience in a written journal and produce a research paper on an international topic.

Special topics courses and courses relevant to International Studies taken abroad may be included to meet the Certificate requirements with the approval of the program coordinator.

Latin American Studies

Professor Cameron; Associate Professors Kane, Shuru; Assistant Professor Nixon (Coordinator).

Latin American Studies is an inter-disciplinary minor that allows students to focus their studies on the literature, culture, arts, history, politics, and language of Latin America and the Caribbean, which includes Spanish-speaking, Francophone, and Lusophone countries of the Americas and Latino/a communities within the United States. The study of Latin America and the Caribbean not only offers insights into this region's many cultures but also deepens knowledge of U.S., European, and African history, culture, politics and international relations. In addition to taking courses offered at Ursinus, students are strongly encouraged to participate in a study abroad program in Latin America.

Requirements for Minors

A minor concentration in Latin American Studies consists of Spanish 252, 317; 332 or LAS 215 and eight additional credits from the following courses: Spanish 200, 203, 351, 352, Politics 242, 344, 345. Relevant topic courses in other departments and in study abroad programs will also count towards the minor with the approval of the coordinator.

LAS-215. U.S. Latino/Latina Literature. *Dr. Shuru*

An introduction to the works of U.S. Latino and Latina authors writing in English in the United States. Emphasis will be on political, social and economic conditions surrounding the literary experiences within the Chicano, Puerto Rican, and Cuban-American communities in the United States. Concepts such as assimilation, transculturation, racism, gender, ethnicity, language and identity will be examined. The language of instruction is English. Prerequisite: LS-100. Three hours per week. *Four semester hours. (D.)*

SPAN/LAS-332. Latin American Studies *Dr. Cameron, Dr. Nixon, Dr. Shuru*

An interdivisional approach to the study of Latin America. The development of the history, politics, society and literature of Latin American nations will be examined. Readings will be selected from the works of major intellectual figures and writers. Emphasis will be on the 20th century. Weekly lectures, films, and class discussions. The language of instruction is English. Open to upperclass students. Four hours per week. *Four semester hours. (G.)*

Mathematics and Computer Science

Professor Coleman (Chair); Associate Professors Berman, Neslen, Yahdi; Assistant Professors Goebeler, Kontostathis, Liston, Williams; Instructors Doman, Gargano, Maxwell and Wait.

The general aims of the department of mathematics and computer science are (1) to give the students a grasp of the ideas and methods of mathematics and computer science; (2) to develop an understanding and appreciation of mathematics as an abstract deductive system; (3) to give the students an appreciation of the historical importance of mathematics in the progress of civilization, both past and present; and (4) to provide the students with sufficient skills to enable them to apply their knowledge to related fields of study.

For students majoring in mathematics or computer science, the department aims to provide stimulation and preparation for (1) continued study at the graduate level; or (2) effective teaching in the secondary schools; or (3) employment in industrial research, statistics, computing, or actuarial positions. For other majors, it seeks to provide the mathematical competence required by the increasing quantitative emphasis in many of these disciplines.

Note: Students who major in mathematics or computer science are encouraged to elect either a minor in another discipline or additional courses in mathematics and computer science. The latter is especially recommended for students planning to do graduate work in mathematics or a related discipline

Computer Science

Requirements for Computer Science Majors

A student majoring in computer science is required to take CS-173, 174, 274, 371; one of CS-373 or 374; CS-350; at least four other computer science courses at the 300- or 400-level, one of which must be a 400-level capstone course; MATH-236W; and one other course in mathematics numbered 112 or above, excluding MATH/PHIL-260. Internships (CS-381, 383) and one-credit and two-credit research/independent work courses (CS-391-392) do not fulfill any requirements for the major.

While CS-394 always fulfills the ILE requirement for the college, CS-394 may satisfy an elective requirement for the major only with prior permission of the department chair.

Recommendations for Computer Science Majors

Additional recommended mathematics courses are MATH-112, 211, 235, 310, 241, 341 and 413. Recommended ancillary courses are Physics 111, 112, 209 and BE-100.

Requirements for Computer Science Minors

A minor concentration in computer science consists of CS-173, 174; and three additional courses chosen from MATH-236W, CS-274, 371, 373, 374, 375, 376, 377, 471, 472, 475, 476, 477, 478.

CS-100. Computer Science for the Liberal Arts *Faculty*

Broad introduction to topics in computer science. Introductory programming in a computer language. For students who do not intend to take other computer science courses. Offered in the fall of odd years. Three hours per week. *Four semester hours.*

CS-173. Introduction to Computer Science. *Faculty*

Introduction to the field of computer science. Topics include: methods for computational problem solving, algorithm development techniques, processes for development of new technologies, and programming projects of increasing complexity in a high-level language with emphasis on good programming style. The course also includes exposure to advanced topics in computer science such as graphics, human-computer interaction, and software engineering. Recommended for students in mathematics; business and economics; and the natural

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sciences. No prior computer programming experience is assumed. Offered every semester. Three hours of lecture and one hour of laboratory per week. *Four semester hours.*

CS-174. Data Structures *Faculty*

A continuation of CS-173. Introduction to algorithm analysis and data structures. Classes and instances, vectors, and lists. Larger programs and/or team projects. Prerequisite: CS-173. Offered in the spring semester. Three hours of lecture per week. *Four semester hours.*

CS-270. Computational Statistics (SAS) *Faculty*

Statistical analysis using statistical software. Design, collection, organization, and storage of data sets. Statistical programming, debugging, analysis of output and interpretation of results. Prerequisites: MATH242 or MATH-243. Offered in the spring semester. Three hours of lecture and two hours of laboratory per week. *Four semester hours.*

CS-274. Computer Architecture and Organization *Faculty*

Hierarchical structure of computer architecture, number systems, arithmetic operations, codes, switching algebra, logic gates, assembly language programming. Prerequisite: CS-174. Offered in the spring semester. Three hours of lecture and two hours of laboratory per week. *Four semester hours.*

CS-350. Oral Presentation *Faculty*

A computer science oral presentation. This course will satisfy the College requirement for an oral presentation in the major. Prerequisite: written consent of a department faculty member. Graded S/U. *Zero semester hours.* Note: This course is usually taken in conjunction with internships (CS-381, 383) and research/independent work (CS-391-394, 491, 492).

CS-371. Design and Analysis of Algorithms *Dr. Liston*

Complexity of algorithms, searching and sorting algorithms, tables, hashing, recursion, tree and graph algorithms. Offered in the fall semester. Prerequisites: Math 111 or equivalent, MATH-236W, and CS-174, or permission of the instructor. Three hours per week. *Four semester hours.*

CS-373. Theory of Computation *Dr. Liston*

Principles of formal languages, automata, computability and computational complexity. Emphasis on writing proofs of theorems. Prerequisites: MATH-236W, CS-174. Offered in the fall of odd years. Three hours per week. *Four semester hours.*

CS-374. Principles of Programming Languages *Faculty*

Syntax, processors, representations and styles of programming languages. Study and comparison of several modern programming languages. Offered in the spring of odd years. Prerequisite: CS-174. Three hours per week. *Four semester hours.*

CS-375. Object Oriented Design and Systems Development *Dr. Kontostathis*

Topics integral to the design, implementation and testing of a medium-scale software system combined with the practical experience of implementing such a project as a member of a programming team. Object-oriented design principles and design experience using Unified Modeling Language (UML) or another modeling language. Prerequisite: CS-173. Offered in the fall of even years. Three hours per week. *Four semester hours.*

CS-376. Operating Systems *Faculty*

Fundamental concepts of operating systems. Sequential processes, concurrent processes, resource management, scheduling, synchronization, file systems, and computer security. Projects include writing of a program to simulate major components of an operating system. Prerequisite: CS-274. Offered in the spring of even years. Three hours per week. *Four semester hours.*

CS-377. Database Design *Dr. Kontostathis*

The concepts involved in designing and using a database management system. Logical and physical database design. Entity-Relational Modeling. Various types of database structures, manipulations of a database structure through applications, query techniques, and programming in a database language. Prerequisite: CS-174. Offered in the fall of odd years. Three hours per week. *Four semester hours.*

CS-381. Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. An oral presentation to the department is required. Contact the chair of the department for further details. Prerequisites: junior standing, three courses in computer science and approval of a faculty internship adviser. Eight to ten hours per week. Graded S/U. *Three semester hours. (1.)*

CS-383. Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. An oral presentation to the department is required. Contact the chair of the department for further details. Prerequisites: junior standing, three courses in computer science and approval of a faculty internship adviser. Eleven to 14 hours per week. Graded S/U. *Four semester hours. (1.)*

Note: Students may receive credit for two internships that meet the conditions described in this catalogue.

CS-391. Research/Independent Work *Faculty*

Independent investigation of an area of computer science not covered in regular courses. Prerequisite: Written consent of a department faculty member. Graded S/U. One semester hour. *Note: This course may be taken more than once. (1.)*

CS-392. Research/Independent Work *Faculty*

Independent investigation of an area of computer science not covered in regular courses. Prerequisite: Written consent of a department faculty member. Graded S/U. *Two semester hours. Note: This course may be taken more than once.*

CS-394. Independent Study *Faculty*

Independent investigation of an area of computer science not covered in regular courses. Prerequisite: Written consent of a department faculty member. An oral presentation to the department is required. *Four semester hours. (1.)*

Note: This course may be taken more than once. This course always fulfills the ILE requirement for the college, but may satisfy an elective requirement for the major only with prior permission of the department chair

CS-471. Seminar in Computer Science I *Faculty*

A detailed study of an advanced topic in computer science, such as computational geometry, compilers, data mining, robotics or distributed technology. Prerequisites: CS-174 and written permission of the instructor. Usually offered in the fall semester of even years. May be repeated for credit. Three hours per week. *Four semester hours.*

CS-472. Seminar in Computer Science II *Faculty*

The course will cover topics similar to those listed in CS-471. Prerequisites: CS-174 and written permission of the instructor. Offered in the spring semester as needed. May be repeated for credit. Three hours per week. *Four semester hours.*

CS- 475. Computer Networks *Faculty*

Architecture and protocols of computer networks. Protocol layers; network topology; data-communication principles, including circuit switching, packet switching and error control techniques; sliding window protocols, protocol analysis and verification; routing and flow control; local and wide area networks; network interconnection; client-server interaction; emerging networking trends and technologies; topics in security and privacy. This course will satisfy the College requirement for a capstone experience in the major. Prerequisite or co-requisite: CS-274. Offered in the spring of odd years. Three hours per week. *Four semester hours.*

CS- 476. Computer Graphics *Dr. Liston*

Software and hardware for interactive computer graphics. Implementation of device drivers, 3-D transformations, clipping, perspective, and input routines. Data structures, hidden surface removal, color shading techniques, and some additional topics will be covered. This course will satisfy the College requirement for a capstone experience in the major. Prerequisites: CS-174 and MATH-235. Offered fall of even years. Three hours per week. *Four semester hours.*

CS- 477. Artificial Intelligence *Dr. Kontostathis*

This course explores principles and methods for knowledge representation, reasoning, learning, problem

solving, planning, heuristic search, and natural language processing. These principles are applied to problems which require building intelligent systems in a variety of domains. This course will satisfy the College requirement for a capstone experience in the major. Prerequisite: CS-174. Offered in fall of odd years. Three hours per week. *Four semester hours.*

CS-478. Parallel Algorithms and Computing *Faculty*

Concurrent and parallel programming, with an emphasis on language constructs. Major topics include: exceptions, coroutines, atomic operations, critical sections, mutual exclusion, semaphores, high-level concurrency, deadlock, interprocess communication, process structuring, shared memory and distributed architectures. Students will learn how to structure, implement and debug concurrent programs. This course will satisfy the College requirement for a capstone experience in the major. Prerequisite: CS-371. Offered in the spring of even years. Three hours per week. *Four semester hours.*

CS-491. Research/Independent Work *Faculty*

Independent research in computer science. This course is appropriate for students pursuing departmental honors and distinguished honors projects, and is open to other students interested in research in computer science. An oral presentation to the department is required. Prerequisites: Written consent of a member of the faculty to serve as an advisor. *Four semester hours. (I.)*

Note: This course may be taken more than once.

CS-492W. Research/Independent Work *Faculty*

Independent research in computer science. This course serves as the culminating course for departmental honors and distinguished honors projects. This course will satisfy the college requirement for a capstone experience in the major. Prerequisites: CS-491, meets college and departmental requirements for honors, and written consent of a member of the faculty to serve as an advisor. *Four semester hours. (I.)*

Mathematics

Requirements for Mathematics Majors

A student majoring in mathematics is required to take CS-173 and 36 credits in mathematics.

1. The following courses are required: CS-173 and Math-112, 211, 235, 236W, 311, 335, and 350.
2. In addition, one of the capstone courses is required: MATH-413, 421, 434, 442, or 492W.
3. The remaining eight credits must be selected from 300-400 level mathematics courses, excluding internships (MATH-381, 383, 384) and one credit and two credit research/independent work courses (MATH-391, 392).

While MATH-394 always fulfills the ILE requirement for the college, MATH-394 may satisfy an elective requirement for the major only with prior permission of the department chair. A student who is not prepared to take MATH-112 will need to take MATH-111 or MATH-107 and 108 first.

Recommendations for Mathematics Majors

Business and Economics 100 and Physics 111, 112, are recommended. Students planning to do postgraduate work in mathematics should take MATH-312 and 421. Students planning to seek jobs in industry should take MATH-310, 341, 413, and 442.

Secondary Certification

Students preparing for secondary teaching must major in mathematics, and take MATH-322, 341, and 442 to satisfy the mathematics part of the certification requirements. In addition, the topic of the student's MATH-350 oral presentation must be some aspect of the history of mathematics. As many of the following as possible are recommended: MATH-241, 242, 310, 421, 434. If the student can take MATH-241-242, they should be taken before MATH-341-442.

Details may be obtained from the department of mathematics and computer science or education. Those students preparing for secondary teaching should consult the Ursinus College Education Department.

Requirements for Mathematics Minors

A minor concentration in mathematics consists of MATH-112, 211, 235; and two additional courses in mathematics chosen from 236W, 310, 311, 312, 322, 335, 341, 413, 421, 434, 442, 451, 452.

A minor concentration in statistics consists of MATH-112, 211, 242 or 243, 341, 442. A minor concentration in biostatistics consists of BIO-101Q, 102Q; MATH-241, MATH-243, and one of CS-270, MATH-384, or MATH-441.

Note: Students who have taken MATH-242 (Statistics II) may substitute a second course from CS-270, MATH-384, or MATH-441 for MATH-243.

MATH-100. Mathematics for the Liberal Arts *Faculty*

A cultural and historical approach to mathematics. Appreciation of the beauty and creative aspects of mathematics and its role in nature and the arts. Essay tests and papers as well as problems using deductive reasoning. Offered in the spring semester. Three hours per week. *Four semester hours. (M.)*

MATH-105. Calculus for Business and Economics *Faculty*

Conceptual understanding of differential and integral calculus. Some classical applications as well as applications to economics and business. Offered both semesters. Four hours per week. *Four semester hours.*

Note: A student may not receive credit for both MATH-105 and MATH-108. A student who has received credit for MATH-105 may not enroll in MATH-107. A student who has received credit for MATH-111 may not enroll in MATH-105. (M.)

MATH-107. Calculus with Review I *Faculty*

Calculus integrated with an extensive review of precalculus. The Cartesian plane; algebraic, exponential and logarithmic functions; limits; continuity; derivatives; applications of derivatives. Use of a computer algebra system. Continued in MATH-108. The sequence MATH-107-108 is equivalent to MATH-111 with precalculus review. Prerequisite: Placement based on the high-school record and a placement test. Offered in the fall semester. Four hours per week. *Four semester hours. (M.)*

Note: A student who has received credit for MATH-105 or MATH-111 may not enroll in MATH-107.

MATH-108. Calculus with Review II *Faculty*

A continuation of MATH-107. Calculus integrated with an extensive review of precalculus. Trigonometric and inverse trigonometric functions and their applications; indeterminate forms; the Fundamental Theorem of Calculus. Use of a computer algebra system. The sequence MATH-107-108 is equivalent to MATH-111 with pre-calculus review. Prerequisite: A grade of C- or better in MATH-107. Offered in the spring semester. Four hours per week. *Four semester hours. (M.)*

Note: A student may not receive credit for both MATH-108 and either of MATH-105 and MATH-111.

MATH-111. Calculus I *Faculty*

Limits; derivatives; applications of derivatives; trigonometric, inverse trigonometric, logarithmic, and exponential functions; applications of these functions; indeterminate forms; the Fundamental Theorem of Calculus. Use of a computer algebra system. Prerequisite: Placement based on the high-school record and a placement test. Offered both semesters. Four hours per week. *Four semester hours. (M.)*

Note: A student may not receive credit for both MATH-108 and MATH-111. A student who has received credit for MATH-111 may not enroll in MATH-105 or MATH-107.

MATH-112. Calculus II *Faculty*

A continuation of MATH-111. Techniques of integration, applications of integration, improper integrals, polar coordinates, parametric equations, infinite sequences and series. Use of a computer algebra system. Prerequisite: Placement based on the high-school record and a placement test, or a grade of C- or better in MATH-108 or MATH-111. Offered both semesters. Four hours per week. *Four semester hours. (M.)*

MATH-211. Multivariate Calculus *Faculty*

Functions of several variables, including three-dimensional geometry and vectors, space curves and motion

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in space, partial differentiation, multiple integration, line and surface integrals, and the theorems of Green, Gauss, and Stokes. Use of a computer algebra system. Prerequisite: A grade of C- or better in MATH-112, or permission of the department. Offered both semesters. Four hours per week. *Four semester hours. (M.)*

MATH-235. Linear Algebra *Dr. Berman*

Systems of linear equations, matrix theory, real vector spaces, linear transformations, eigenvectors and eigenvalues, inner products, orthogonal transformations, least-squares solutions, applications. The computer as a computational tool. Prerequisite: MATH-111 or equivalent, or permission of the instructor. Offered in the fall semester. Four hours per week. *Four semester hours. (M.)*

MATH-236W. Discrete Mathematics *Dr. Berman, Dr. Williams*

A course designed to bridge the gap between computation-oriented introductory courses and proof-oriented advanced courses. The language of contemporary mathematics, including the proper way to write mathematics, and the nature of mathematical reasoning. Extensive writing projects. Topics studied may include axiomatic systems, logic, set theory, functions, mathematical induction, graph theory and trees, permutations and combinations. Prerequisite: MATH-111, or permission of the instructor. Offered in the spring semester. Three hours per week. *Four semester hours. (M.)*

MATH-241Q. Statistics I *Faculty*

Statistical methods of studying data, measures of central tendency and dispersion, probability, and distributions including: binomial, normal, and Student's t ; confidence intervals and hypothesis testing. Computer statistical packages. Offered both semesters. Four hours per week. *Four semester hours. (M.)*

Note: Students with credit for MATH-342 or MATH-442 may not enroll in MATH-241.

MATH-242. Statistics II *Dr. Coleman*

A continued study of basic statistical techniques including basic concepts of experimental design, techniques of analysis of variance, methods of regression analysis, linear models, chi-square tests and nonparametric statistics. Prerequisite: MATH-241 or 442. Offered in the spring semester. Three hours of lecture and two hours of laboratory per week. *Four semester hours. (M.)*

MATH-243. Biostatistics *Dr. Coleman*

Statistical techniques appropriate to the biological sciences. Topics such as experimental design, hypothesis testing, nonparametric methods, chi-square tests, simple and multiple regression, analysis of variance. Prerequisite: MATH-241 or 442. Offered in the fall semester. Three hours of lecture and two hours of laboratory per week. *Four semester hours. (M.)*

Note: Students may not receive credit for both MATH-242 and MATH-243.

MATH/PHIL-260. Logic *Dr. Florka, Dr. Goetz* An introduction to the concepts and techniques used in symbolic reasoning, primarily through the study of first-order logic, the translation of sentences of ordinary English into a formal language, and the construction of derivations. Topics include: formalization, proofs, mathematical induction, propositional and predicate logic, quantifiers, and sets. (Formerly PHIL-202.) Three hours per week. *Four semester hours. (M.)*

Note: Students who have received credit for MATH-236W or the former PHIL-202 may not enroll in MATH/PHIL 260.

MATH-310. Differential Equations and Mathematical Models *Dr. Yahdi*

Mathematical methods for developing models in the physical, biological, and social sciences. Emphasis on models involving differential equations. Solutions, visualizations, and interpretations of first order, second order, and systems of linear and non-linear differential equations. Numerical, graphical and analytic methods, with extensive qualitative analysis approaches. Laplace transforms. Independent projects. Additional topics chosen from forcing and resonance, discrete dynamical systems, and power series solutions. Use of a computer algebra system. Prerequisite: MATH-112. Offered in the fall of even years. Three hours per week. *Four semester hours. (M.)*

MATH-311. Analysis I *Faculty*

An introduction to the real number system and set operations; theoretical treatment of supremum, infimum, countability, sequences, limits, continuity, and differentiability. Additional topics may include series, structure of point sets and abstract metric spaces. Emphasis on writing mathematical proofs. Prerequisite: MATH-211

and 236W. Offered in the fall semester. Three hours per week. *Four semester hours. (M.)*

MATH-312. Analysis II *Dr. Yahdi*

A continuation of MATH-311. The Riemann and Riemann-Stieltjes integral; infinite series, sequences and series of functions; introduction to metric spaces. Additional topics may include Lebesgue measure and integration, orthogonal functions and Fourier series. Prerequisite: MATH-311. Offered as needed. Three hours per week. *Four semester hours. (M.)*

MATH-322. Modern Geometry *Dr. Berman, Dr. Williams*

Topics in Euclidean and non-Euclidean geometry, including some of the following: geometry from an axiomatic viewpoint, synthetic Euclidean geometry, transformation geometry and symmetry, affine and projective geometry, inversive geometry, spherical geometry, and hyperbolic geometry. Prerequisites: MATH-235 and 236W, or permission of the instructor. Offered in the spring of odd years. Three hours per week. *Four semester hours. (M.)*

MATH-335. Abstract Algebra *Dr. Goebeler*

An introduction to algebraic structures, with emphasis on groups: Subgroups, quotient groups, homomorphisms, isomorphism theorems, Cayley's theorem, permutation groups. Prerequisites: MATH-235 and 236W. Offered in the spring semester. Three hours per week. *Four semester hours. (M.)*

MATH-341. Probability *Dr. Coleman*

An introduction to probability theory, discrete and continuous probability distributions, moments and moment-generating functions of random variables, transformations of random variables. Prerequisite: MATH-211. Offered in the fall semester. Four hours per week. *Four semester hours. (M.)*

MATH-350. Oral Presentation *Faculty*

A mathematics oral presentation. This course will satisfy the College requirement for an oral presentation in the major. Prerequisite: written consent of a department faculty member. Graded S/U. *Zero semester hours.*

Note: This course is usually taken in conjunction with internships (MATH-381, 383, 384, 441) and research/independent work (MATH-391-394, 441, 491, 492W).

MATH-381. Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. An oral presentation to the department is required. Contact the chair of the department for further details. Prerequisites: junior standing, three courses in mathematics and approval of faculty internship adviser. Eight to ten hours per week. Graded S/U. *Three semester hours. (I.)*

MATH-383. Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. An oral presentation to the department is required. Contact the chair of the department for further details. Prerequisites: junior standing, three courses in mathematics and approval of faculty internship adviser. Eleven to 14 hours per week. Graded S/U. *Four semester hours. (I.)*

Note: Students may receive credit for two internships that meet the conditions described in this catalog.

MATH-384. Internship in Biostatistics *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact the chair of the department for further details. Prerequisites: junior standing, MATH-242 or MATH-243, and approval of a faculty internship adviser. Eleven to 14 hours per week. Graded S/U. *Four semester hours. (I.)*

MATH-391. Research/Independent Work *Faculty*

Independent investigation of an area of mathematics not covered in regular courses. Prerequisite: Written consent of a department faculty member. Graded S/U. *One semester hour.*

Note: This course may be taken more than once.

MATH-392. Research/Independent Work *Faculty*

Independent investigation of an area of mathematics not covered in regular courses. Prerequisite: Written consent of a department faculty member. Graded S/U. *Two semester hours. Note: This course may be taken more than once.*

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MATH-394. Independent Study *Faculty*

Independent investigation of an area of mathematics not covered in regular courses. An oral presentation to the department is required. Prerequisite: Written consent of a department faculty member. *Four semester hours.*
Note: This course may be taken more than once. This course always fulfills the ILE requirement for the college, but may satisfy an elective requirement for the major only with prior permission of the department chair.

MATH-413. Numerical Analysis *Dr. Yahdi*

Selected topics from numerical analysis, which may include systems of linear equations, linear and nonlinear differential equations, numerical integration and differentiation, eigenvalue problems, error analysis, interpolation and approximation. The computer will be used. This course will satisfy the college requirement for a capstone experience in the major. Prerequisite: MATH-211. Offered in even year fall semesters. Three hours per week. Four semester hours.. Offered in even year fall semesters. Three hours per week. *Four semester hours. (M.)*

MATH-421. Topology *Faculty*

Elementary point set topology; metric spaces; topological spaces, separation axioms, compactness, connectedness. This course will satisfy the College requirement for a capstone experience in the major. Prerequisite: MATH-311. Offered in even year spring semesters. Three hours per week. *Four semester hours. (M.)*

MATH-434. Theory of Numbers *Faculty*

Divisibility; unique factorization; congruences; theorems of Fermat, Euler and Wilson; primitive roots; Diophantine equations; Fermat's conjecture; algebraic and transcendental numbers; Liouville's theorem. Additional topics chosen from quadratic reciprocity; continued fractions; sums of squares; distribution of primes; quadratic fields; public-key cryptography. This course will satisfy the College requirement for a capstone experience in the major. Prerequisite: MATH-236W. Offered in odd year fall semesters. Three hours per week. *Four semester hours. (M.)*

MATH-441. Applied Research in Biostatistics *Faculty*

Directed independent study on current problems in biostatistics. A mentoring program run in conjunction with local industry. The course will introduce students to fundamental research procedures and data analysis in the context of a research problem resulting in a research report. Students should expect to spend at least 12 hours per week working on their research project. Prerequisites: junior standing, MATH-242 or MATH-243, and written permission of a department faculty member required. *Four semester hours. (M.)*

MATH-442. Mathematical Statistics *Dr. Coleman*

The mathematical background of modern statistics, including the development of sampling distributions, the theory and application of estimation, tests of hypotheses, regression and correlation, and analysis of variance. This course will satisfy the College requirement for a capstone experience in the major. Prerequisite: MATH-341. Offered in the spring semester. Three hours per week. *Four semester hours. (M.)*

MATH-451. Topics in Advanced Mathematics I *Faculty*

A course designed to acquaint the student with modern trends in advanced topics in mathematics and its applications. The course will be adapted to the students' preferences and needs. Prerequisite: Permission of the instructor. Three hours per week. *Four semester hours. (M.)*

MATH-452. Topics in Advanced Mathematics II *Faculty*

A course designed to acquaint the student with modern trends in advanced topics in mathematics and its applications. The course will be adapted to the student's preferences and needs. Prerequisite: Permission of the instructor. Three hours per week. *Four semester hours. (M.)*

MATH-491. Research/Independent Work *Faculty*

Independent research in mathematics. This course is appropriate for students pursuing departmental honors and distinguished honors projects, and is open to other students interested in research in mathematics. An oral presentation to the department is required. Prerequisites: Written consent of a member of the faculty to serve as an advisor. *Four semester hours. (I.)*

Note: This course may be taken more than once.

MATH-492W. Research/Independent Work Faculty

Independent research in mathematics. This course serves as the culminating course for departmental honors and distinguished honors projects. This course will satisfy the college requirement for a capstone experience in the major. Prerequisites: MATH-491, meets college and departmental requirements for honors, and written consent of a member of the faculty to serve as an advisor. *Four semester hours. (1.)*

Media and Communication Studies

Professors Czubaroff (*Chair*), Miller; *Associate Professors* Edwards, Goodman; *Assistant Professors* Scranton, Woodstock, *Instructor* LaTassa; *Lecturers* Selverian.

Based in the liberal arts and drawing upon social scientific and humanistic traditions, our program focuses on the creation, criticism, and impact of communication in our global society. In an era of rapid technological and social change, this program specifically emphasizes the role of the media and aims to increase awareness of the centrality of communication to identity, social order, and democratic processes.

A degree in Media and Communication Studies prepares students for graduate work in media and communication studies, for careers in the communication and information industries as well as leadership positions in business, law, politics, and education. Students are encouraged to work with their major adviser to develop a course of study that best meets their individual goals and challenges them to consider the relationship between theory and practice.

Majors are encouraged to consider a study abroad program and to complete an internship as part of their department and college requirements. The College's proximity to Philadelphia, one of the nation's largest media markets, offers our students a range of internship opportunities in print, broadcast, cable, film, advertising, public relations and digital media. Majors are expected to participate actively in and to assume leadership roles with campus organizations associated with the field of communication. These include *The Grizzly*, the campus newspaper; WVOU, the campus radio station; The Forensics Society, the campus speech and debate team; and UCTV, the campus cable station.

Requirements for Majors

A major in Media and Communication Studies consists of 40 semester hours of credit, including MCS-200W, MCS-201, and MCS-205; one course selected from MCS-207 – MCS-240; one course selected from MCS-260 – MCS-290; two courses selected from MCS-300 – MCS-370; one senior seminar selected from MCS-460W, 462W, or 464W, and at least two additional MCS elective courses. Any two Film Studies (FS) courses may also count as elective courses toward the MCS major. Students may fulfill the senior seminar requirement with MCS-491 and 492W. Majors are strongly encouraged to complete an internship (MCS-381, 382, 383, or 384); however, only one internship may count toward the MCS major. Up to four credits from MCS-001-024 may count towards the major. Students are encouraged to take MATH-241Q to fulfill the college mathematics and "Q" requirement.

Requirements for Minors in Media and Communication Studies:

A minor in media and communication studies consists of five (5) 4-credit courses, including MCS-205 and two (2) courses between 260-370. One FS course may also count toward the MCS minor.

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MCS-100. Topics in Media and Communication Studies *Faculty*

This course is an introductory seminar exploring theories, principles, and/or practices in the field of media and communication studies. Topics will vary. Enrollment is limited to freshmen and sophomores or permission of instructor. Three hours per week. *Four semester hours. (SS or H or A, depending on topic)*

MCS-102. Introduction to Public Speaking *Prof. LaTassa*

The theory and practice of formal speaking in public forums. Students are introduced to fundamentals of public speaking and the art of listening. Three hours per week. *Three semester hours.*

MCS-200W. Communication Theory and Research *Dr. Czubaroff, Dr. Goodman, Dr. Woodstock*

An exploration of the concepts and models of communication common to a wide range of communication contexts. Students are introduced to theories, research methods, and writing conventions common to media, rhetoric and interpersonal communication. Prerequisite: MCS-205. Three hours per week. *Four semester hours.*

MCS-201. Speech and Criticism in a Democratic Society *Prof. LaTassa*

Working with a communication form crucial to the life of a democracy, students construct, deliver, and criticize speeches about significant public issues of the day. The course includes an introduction to rhetorical theory and criticism, and a review of the fundamentals of speech preparation and presentation. Four hours per week. *Four semester hours.*

MCS-205. Media and Society *Dr. Edwards, Dr. Miller, Dr. Woodstock*

This course explores the role and influence of media in shaping social norms, political decision making, and individual beliefs and practices. In addition to a consideration of historical developments, the course engages contemporary issues such as corporate conglomeration, globalization, media convergence, digital culture, audiences as producers and receivers, and consumer culture. Three hours per week. *Four semester hours. (SS)*

MCS-207. Print Journalism. *Dr. Edwards, Dr. Jaroff*

This course introduces students to the principles of print journalism, including: information gathering, writing, editing and presentation of news under deadline. Students also explore issues related to libel, visual literacy, and changing audience demographics through the critical analysis, interpretation, and evaluation of various media outlets. Four hours per week. *Four semester hours.*

MCS-208. Online Journalism *Dr. Edwards, Dr. Miller, Prof. Scranton*

This course introduces students to the conventions of newswriting and publishing in new media platforms including, but not limited to, wikis and blogs. Photography, video, and graphic editing techniques are also included. Prerequisite: MCS-207. Four hours of lecture and one hour of lab per week. *Four semester hours.*

MCS-209. Documentary Photography *Dr. Miller*

This course introduces students to the concepts of visual documentation, social documentary style, photojournalism and ethics in photography as well as an historical perspective on the works of visual social documentarians. Students are required to conduct field work collecting digital still images to create visual narratives on a range of issues. Students enrolled in this course will need access to a digital camera to complete assignments. Three hours per week. *Four semester hours. (A)*

MCS-210. Television Studio Production *Dr. Miller*

An overview of the principles and techniques of studio television production. Emphasis is placed on translation of ideas into a visual format, program conceptualization, preproduction planning, script writing, critical analysis of the visual image, group work and peer review of programs. Program content will focus on non-fiction formats including broadcast journalism, public affairs and public service programming. Three hours of lecture and two hours of lab per week. *Four semester hours.*

MCS-212. Electronic Field Production. *Dr. Miller*

An overview of the principles and techniques of single camera, electronic field production. Emphasis is placed on program conceptualization, pre-production planning, single-camera script development and post-production techniques including linear and non-linear editing, and audio mixing. Prerequisites: MCS-105, MCS-210. Three hours of lecture and two hours of lab per week. *Four semester hours. (A)*

MCS/ART-220. Introduction to New Media *Prof. Scranton*

An introduction to digital media through artistic creation and critical analysis. Students will learn how to construct, communicate, and interpret messages disseminated through digitally manipulated images and interactive web-based content. Class critiques will be conducted upon the completion of each assignment. Three hours of lecture, one hour of lab per week. *Four semester hours. (A)*

MCS-225. Digital Filmmaking *Prof. Scranton*

Introduces students to all stages of digital video production. Students will learn how to conceptualize, write, and develop a script, design a storyboard and visual treatment, and shoot and edit a digital short film. There will also be weekly readings, viewings, and discussions focused on the history and language of film. Prerequisite: MCS 220 or permission of instructor. Three hours of lecture and two hours of lab per week. *Four semester hours.*

MCS-240. Topics in Media Production *Dr. Miller, Prof. Scranton*

This course will focus on specific media production areas not covered in other applied courses in the MCS department. Three hours per week. *Four semester hours. (A)*

MCS-264. Dialogue and Community *Dr. Czubaroff*

An introduction to the theory and practice of collaborative communication and dialogue. Special attention is given to the role of dialogue in conflicts of ideas in the public domain. Students plan and facilitate a series of small group conversations on the Ursinus campus. Three hours per week. *Four semester hours.*

MCS-282. Technology and Culture *Dr. Edwards, Prof. Scranton, Dr. Woodstock*

This class focuses on the dynamics between new communication technologies and culture and asks 3 questions: How are new communication technologies revolutionary? How are they continuities of traditional media in terms of content, audiences, advertising, and corporate ownership? Do cultural changes determine advancements in communication technologies or do changes in communication technologies determine cultural changes? Three hours per week. *Four semester hours. (SS)*

MCS-284. Conflict and Communication *Dr. Czubaroff*

Taking a communication perspective, this course examines the nature of conflict in American society and offers alternatives to unilateral power based strategies of conflict resolution. Students are introduced to theories about the nature and kinds of conflict, as well as differing models for managing conflicts. They learn to map and analyze real life conflict situations in interpersonal, inter-group, and organization contexts and work with skills and models for conflict resolution. Three hours per week. *Four semester hours. (SS.)*

MCS-285. Critical Analyses in Popular Culture. *Faculty*

An intensive examination of a single media text, genre, or auteur from a variety of critical perspectives, including (but not limited to): auteur, genre, feminist and cultural criticism. Outside screenings are required. Four hours per week. *Four semester hours. (H.)*

MCS-286. Gender, Ethnicity and Communication *Dr. Goodman*

This course explores theories and research on gender, ethnicity and communication, with a particular focus on African American culture. Students will use two research methods to study the relationship between gender, ethnicity and communication: a discourse analysis and an autoethnography. The reading, writing, and discussions in the course will encourage students to cultivate more reflective communicative practice. Three hours per week. *Four semester hours. (SS, D.)*

MCS-288. Global Media *Dr. Miller*

An examination of media within the global community. National media systems are analyzed within the context of the cultural, political and economic environments in which they developed and now operate. Technological advances in communication systems will be explored as the forces behind the recent growth of a global media system. Students will examine the role of transnational media ownership, globalization of culture especially in non-western nations and the vital role of new media technology in the rise of international terrorist organizations. Three hours per week. *Four semester hours. (SS, G)*

MCS-290. Special Topics in Media and Communication Studies *Faculty*

This course will focus on a specific topic not covered in the other courses in the curriculum. Three hours per week. *Four semester hours.*

MCS-298. Readings in Media and Communication Studies *Faculty*

Individual student-initiated study within the field on a selected topic culminating in the preparation of a critical bibliography of the works read, or other final product as determined by the faculty member supervising the readings. Prerequisites: MCS-200W, major or minor in media and communication studies, a written project proposal, and permission of a department faculty member to serve as adviser. This course is limited to second and third year majors or minors who want to explore an area of research with the expectation of continuing that research in an upper division independent study. *One semester hour.*

MCS/ART-325. Tactics, Media, and Art *Prof. Scranton*

Traces the origins of new media art, practice and theory, from the post-war era through to the present. Students will be introduced to a wide range of artistic and cultural movements aimed at socio-political transformation while paying special attention to contemporary practices such as flash mobs, hacktivism, and tactical media, which aim to utilize or subvert the mainstream media. Three hours per week. *Four semester hours.*

MCS-330. Freedom of Expression *Dr. Woodstock*

This course examines the theoretical and historical underpinnings of how we think about freedom of expression and its importance to societies organized around the idea of democracy. The course will contrast two intellectual approaches to the role of expression in Western society: the classical liberal and the romantic. We will explore the historical development of these ideas, analyze how they were applied in landmark cases, as well as challenge ourselves to apply these systems of logic to contemporary speech controversies. We will conclude by considering how new media technologies are shaped and challenged by the underpinnings of free expression. Three hours per week. *Four semester hours. (H.)*

MCS/BE-331. Critical Analysis of Organizational Communication *Dr. Goodman*

This course focuses on the study of talk in and about organizations, including an examination of communication theories of management, organizational codependency, organizational culture, power, and emotional labor. Students will be expected to conduct field research on an organization using a variety of methods. Three hours per week. *Four semester hours. (SS.)*

MCS-350. Intercultural Communication *Dr. Goodman*

An examination of face-to-face communication between people of different cultural backgrounds. Case studies are analyzed to identify differences in expectations, practices, and interpretations. Topics include cross-cultural comparisons of conversational style, power relations, language, and perception in educational, organizational, and social settings. This course may be a particular interest to students preparing to study abroad as well as those planning to work in international business, education, and politics. Three hours per week. *Four semester hours. (D, G.)*

MCS-358. Persuasion: The Power of Language and the Visual Image *Dr. Czubaroff*

Using classical and contemporary concepts of rhetoric, students examine a number of genres of strategic persuasion, including propaganda, political campaign communication, and advertising. The goal is to discover and evaluate the persuasive resources relied upon. Prerequisite: MCS-201 or permission of instructor Three hours per week. *Four semester hours. (H.)*

MCS-360. News Analysis *Dr. Edwards, Dr. Miller, Dr. Woodstock*

A critical exploration of news culture. Students work with quantitative and qualitative methodologies to explore issues related (but not limited) to race, gender, class, and nationality in the production and consumption of American news. Three hours per week. *Four semester hours. (SS.)*

MCS-363. Audience Analysis *Dr. Edwards*

A qualitative and quantitative examination of the "audience" construct in historical and new media contexts. Three hours per week. *Four semester hours. (SS.)*

MCS-365. Advanced Processes in Digital Production *Prof. Scranton*

This course encompasses the complete digital video production process from initial concept to final screening format. Informed by contemporary art practices and theory, students will work in High Definition (HD) Digital Video and will learn advanced 2-D animation, special effects, and DVD encoding and authoring. This

course will focus on individual conception and artistic creation. Prerequisites: MCS/ART-220 and 225 or permission of instructor. Three hours of lecture and two hours of lab per week. *Four semester hours.*

MCS 366. Digital Democracy *Dr. Woodstock*

This class explores uses of new communication technology in political and social organizing, with particular attention to subgroups within the US population and how issues of race, class, and gender interact with the opportunities and constraints of our digital democracy. The class emphasizes the theoretical and historical role of democracy in US society, and more specifically, of the role of media in fostering and/or inhibiting democratic participation. Three hours per week. *Four semester hours. (SS)*

MCS-370. Advanced Special Topics in Media and Communication Studies *Faculty*

This course will focus on a specific topic at an advanced theoretical or critical level within media and communication studies not covered in the other courses in the curriculum. Prerequisite: MCS-205 and four additional credit hours in MCS, or permission of the instructor. Three hours per week. *Four semester hours.*

MCS-381. Internship *Faculty*

An off-campus work experience under the supervision of a faculty adviser and an on-site supervisor. Includes periodic meetings with the faculty adviser and completion of an approved research project. Prerequisite: major or minor in MCS and three courses completed in the department, Junior standing, and approval of a faculty internship adviser. Must complete a minimum of 120 hours. Offered in the fall semester. Graded S/U. *Three semester hours. (I.)*

MCS-382. Internship *Faculty*

Content, prerequisites, and requirements are the same as MCS-381. Offered in the spring semester. Graded S/U. *Three semester hours. (I.)*

MCS-383. Internship *Faculty*

An off-campus work experience under the supervision of a faculty adviser and an on-site supervisor. Includes periodic meetings with the faculty adviser and completion of an approved research project. Prerequisite: major or minor in MCS and three courses completed in the department, junior standing, and approval of a faculty internship adviser. Must complete a minimum of 160 hours. Offered in the fall semester. Graded S/U. *Four semester hours. (I.)*

MCS-384. Internship *Faculty*

Content, prerequisites, and requirements are the same as MCS 383. Offered in the spring semester. Graded S/U. *Four semester hours. (I.)*

NOTE: Only one of the internship courses (MCS 381-384) can count towards the major, although two may count towards graduation. Students considering an internship should read the college policy on internships in this catalog and review MCS department requirements.

MCS-391. Research in Media and Communication Studies *Faculty*

Readings and independent research under the supervision of a faculty adviser. A final product and an oral presentation to the department on a specific topic in media and communication studies is required. Prerequisites: eight credits of course work (MCS-251-370) in media and communication studies, demonstrated competence in the specific area of a study, a written project proposal, and permission of a department faculty member who will serve as project adviser. Offered in the fall semester. *Four semester hours (I.)*

MCS-392. Research in Media and Communication Studies *Faculty*

Content, prerequisites, and requirements are the same as MCS-391. Offered in spring semester. *Four semester hours. (I.)*

MCS-411. Projects in Media and Communication Studies *Faculty*

Advanced individual work on a project related to media and communication studies. Prerequisites: eight credits of 251-400 level course work in media and communication studies, demonstrated competence in the specific area of study, a written project proposal, and permission of a department faculty member who will serve as project adviser. Offered in fall semester. *Four semester hours. (I.)*

MCS-412. Projects in Media and Communication Studies *Faculty*

Content, prerequisites, and requirements are the same as MCS-411. Offered in spring semester. *Four semester hours (1)*

MCS-460W. Seminar in Communication Criticism. *Dr. Czubaroff, Dr. Woodstock*

Employing the methods of rhetoric, narrative and/or semiotics, this seminar focuses on the analysis of the persuasive dimensions of texts, such as popular songs, films, news stories and fictional television programming. Students engage in research and writing and make an oral presentation of their findings. Prerequisites: MCS 200W, MCS-201 and one 300 level course between 300 and 370. Senior standing or permission of instructor. Three hours per week. *Four semester hours.*

MCS-462W. Seminar in Communication and Culture. *Dr. Goodman*

Students work with ethnographic methods as a means to explore the communicative patterns and processes of groups, organizations, and institutions. Students will conduct fieldwork, analyze data, and write a research paper as well as make an oral presentation of their findings. Prerequisites: MCS 200W, MCS-201 and one 300 level course between 300 and 370. Senior standing or permission of instructor. Three hours per week. *Four semester hours.*

MCS-464W. Seminar in Media Analysis. *Dr. Edwards, Dr. Miller*

Using quantitative and qualitative research methods, students analyze messages embedded in the entertainment, persuasive and information media. Focus is on the content and effects of television, film, recordings, and the internet. Students complete a research paper and make an oral presentation of their findings. Prerequisites: MCS 200W, MCS-201 and one 300 level course between 300 and 370. Senior standing or permission of instructor. Three hours per week. *Four semester hours.*

MCS-491. Research/Independent Work *Faculty*

This course is open to candidates for departmental honors and to other students with the permission of the departmental chair. *Four semester hours. (1)*

MCS-492W. Research/Independent Work *Faculty*

A continuation of MCS-491. Prerequisite: MCS-491. *Four semester hours. (1)*

MCS-001-008. Newspaper Practicum *Dr. Edwards, Dr. Jaroff*

A learning experience in which students assume primary responsibility for editorial positions related to the publication of The Grizzly. Prerequisites: MCS-207 or permission of the instructor. Graded S/U. *One semester hour.*

MCS-009-016. Video Practicum *Dr. Miller, Prof. Scranton*

A learning experience in which students assume primary responsibility for cable-related programming, or an editing or multimedia project. Student project proposals must be approved by the instructor. Prerequisites: MCS-210 or 212 and permission of the instructor. Graded S/U. *One semester hour.*

MCS 017-024 Forensic Society *Professor LaTassa*

A learning experience in which students assume responsibility for preparation and participation in inter-collegiate forensic competitions. Requirements include attendance at a weekly coaching session with the forensics coach, participation in at least two events per tournament in at least three tournaments during the semester. Typical events include informative, Prose, Impromptu, Poetry, Persuasion, Debate, Extemporaneous Speaking. Prerequisites: Instructor permission. Graded S/U. *One semester hour.*

Modern Languages

Professors Cameron, Clouser, Lucas, Novack, Trout; *Associate Professors* de Arana, Mizenko (*Chair*), Shuru; *Assistant Professors* Hardin, Nixon; *Instructors* Biel, Steyaert.

The Modern Languages Department develops in students the linguistic, literary and cultural competence necessary to communicate in another language with other peoples, understand their

cultures, and appreciate the knowledge that foreign languages and cultures offer to the national and world communities.

The Modern Languages Department aims, in its elementary and intermediate courses, to develop students' linguistic competence and understanding of a foreign culture and to introduce them to its different cultural products. More advanced courses seek to perfect the use of the oral and written language and to study the literature, art and history of foreign societies and cultures in order to develop faculties of analysis, critical thinking, and aesthetic judgment.

Majors should enrich their studies with courses in other literatures and relevant languages, European history and thought, and the fine arts and music. Majors interested in international affairs, business or diplomacy should choose appropriate courses from the departments of economics and business administration, history and politics. Students planning to pursue graduate study are especially advised to take courses in a second foreign language, world literature, and history, as appropriate. Similarly, students with international interests who are majors in other departments should formulate a minor in French, German, or Spanish to suit their goals. The varied activities of the language clubs add to the department's offerings.

Requirements for Majors (*see individual languages*)

Secondary School Certification: Students planning to obtain certification for secondary-school teaching in French, German or Spanish must take a minimum of 24 credit hours in French, German or Spanish at the 200, 300 and 400 levels. The following courses are required: French 251; 252 or 254; 313 or 314; 328, and at least two 300- or 400-level courses; German 251 and 252; 313 or 314; 328 and at least two 300- or 400-level courses; Spanish 251, 252, 317, 328 and at least two 300- or 400-level courses. Students seeking certification in Japanese are required to take the following courses: Japanese 211, 212, 301, 328; English 224; History 243 or Politics 346; and East Asian Studies 299, 314, or 401. In addition to the course requirements, students are required to pass a qualifying examination before they will be admitted to candidacy for certification and a competency examination before being certified.

These tests will examine students' linguistic competence, orally and in writing, testing phonetics, conversation, grammar and composition. The exit exam will also check their knowledge of French, German, Japanese, or Spanish literature and culture, including the arts, history and geography. Students and their advisers should consult the Ursinus College Education Department. Language majors and students preparing for certification are required to supplement their work at Ursinus by spending a summer, a semester or an entire year in a foreign country with a program approved by the department. Exceptions to this policy may be made by petition to the department chair. Students who wish to satisfy the language requirement in a modern language will be placed in the appropriate language class based on background and the results of the Foreign Language Diagnostic Test.

Requirements for Minors

Minor concentration in French: Consists of 251 and 16 additional credits of French at the 200, 300 or 400 level.

Minor concentration in German: Consists of German 251 and 16 additional credits of German at the 200, 300 or 400 level.

Minor concentration in Japanese: Consists of 20 semester hours, including JPN 211, 212, eight additional credits at the 300-level, and one of the following: EAS/ENG 224, EAS 311, EAS-314,

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EAS-399, HIST 243 or another non-language course on Japan.

Minor concentration in Spanish: Consists of Spanish 208 or Spanish 251 or 252, and 16 additional credits of Spanish at the 200, 300 or 400 level, excluding Spanish 332.

German Studies Minor

A minor concentration in German Studies consists of six courses, two of which must be taken in the History department and two in the German Section of Modern Languages. Two additional courses, one in German, one in History or an independent study project addressing a topic either in History or German, may be taken through the Ursinus in Tübingen Summer Program or other approved study abroad program. Students may choose from among the following courses at Ursinus: History 207, 304, 305, 306, 308, 401W; German 201, 202, 251, 252, 314, 315; in Germany students may choose either two German courses or one German course and History 400W. Students who cannot afford to spend a summer in Germany because of financial hardship may fulfill the requirement for this minor by taking all six courses at Ursinus.

English for Speakers of Other Languages

The ESOL course is meant to be taken during the first year at Ursinus during which many foreign students may have adjustment problems.

ESOL-100. English for Speakers of Other Languages *Faculty*

A developmental course for non-native speakers. Introduction to the structure and style of American academic English. Review of grammar to perfect oral and written communication. Four hours per week plus one hour of tutoring per week. *Four semester hours.*

ML-100, 101, 102, 111, and 112. Modern Languages *Faculty*

Individualized study of languages, such as Hebrew, Arabic, Danish and others. Prerequisite: Permission of the instructor. *Four semester hours.* (These courses do not satisfy the College language requirement for graduation.)

Arabic

ARA-101. Elementary Arabic I *Faculty*

An introduction to the Arabic language. This course will allow the student to master the Arabic alphabet and to learn elementary speaking, writing, and reading in Arabic. Four hours of instruction plus one hour of supervised work with the textbook's DVD material. *Four semester hours. (L.)*

ARA-102. Elementary Arabic II *Faculty*

Continuation of ARA-101. Emphasis on communication and cultural uses of the language. Four hours of instruction plus one hour of supervised work with the textbook's DVD material. *Four semester hours. (L.)*

Chinese

CHN-101. Elementary Chinese I *Faculty*

The course is designed to introduce the student to the basics of Chinese language (Mandarin) in its four skills: speaking, writing, reading, and listening. Four hours per week plus one hour of language laboratory. *Four semester hours (L.)*

CHN-102. Elementary Chinese II *Faculty*

Continuation of Chinese 101. Further development of the four skills (speaking, writing, reading and listening) stressing sentence stress patterns. At the end of the sequence CHN-101-102, students will have mastered at least 500 characters. Four hours per week plus one hour of language laboratory. *Four semester hours. (L.)*

French

French majors are required to take at least 36 credit hours in French language, literature, and civilization above the 100 level. French 251, 252 or 254 and at least one 400-level W course are required, as well as a study abroad experience as approved by the department.

FREN-101. Elementary French I *Faculty*

Development of the four skills of listening, speaking, reading and writing. Designed for beginners or students with little or no recent study of the language. Four hours per week plus one hour of language lab. *Four semester hours.*

FREN-102. Elementary French II *Faculty*

Continuation of FREN-101. Four hours per week plus one hour of language lab. *Four semester hours. (L.)*

FREN-111. Intermediate French I *Dr. Novack*

Conversation and vocabulary development; grammar review, written work and discussions are based on cultural, social and literary selections. Prerequisite: FREN-102 or equivalent. Four hours per week plus one conversation hour with the language assistant. *Four semester hours. (L.)*

FREN-112. Intermediate French II *Dr. Novack*

Continued emphasis on comprehension and speaking. Reading in literary and cultural texts and longer writing assignments. Prerequisite: FREN-111 or equivalent. Four hours per week plus one conversation hour with the language assistant. *Four semester hours. (L.)*

FREN-201. Conversation and Composition *Dr. Trout*

Intensive review of grammar to perfect oral and written communication. Topics of discussion will focus on contemporary French society using newspaper articles, films and literary texts. Writing will be both formal and informal. Prerequisite: FREN-112 or equivalent. Four hours per week plus one conversation hour with the language assistant. *Four semester hours. (H, L.)*

FREN-202. Film and Literature *Dr. Trout*

A study of French culture as reflected through its literature and film. A special emphasis will be put on the adaptation of literary works into films. Prerequisite: FREN-201 or permission of instructor. Four hours per week plus one conversation hour with the language assistant. *Four semester hours. (H, L)*

FREN-203. Studies of Senegal *Dr. Novack*

Study of contemporary Senegal, especially the indigenous and European influences which have contributed to modern Senegalese culture, as concrete preparation for future study abroad in Senegal. French 203 includes essential information on Senegalese geography, history, politics, customs, languages, society, literature, and the arts. Readings come from works of major Senegalese writers and authentic cultural documents. Class discussion in French, guest speakers, Senegalese films. Fall semester. Prerequisite: FREN-112 or permission of instructor. This course does not satisfy the language requirement unless it is taken with FREN-209. Two hours per week. *Two semester hours. (H, L, with FREN-209.)*

FREN-209. Winter Study in Senegal *Dr. Novack*

A two-week language course, including 30 hours of classroom study, homestay with a Senegalese family, afternoon excursions and weekend travel directed by Ursinus faculty. Offered during winter break. Students may register for French 209 as part of the regular load for either semester. Prerequisite: FREN-203 or permission of the instructor. This course may be used to fulfill the language requirement only if taken twice or in conjunction with FREN-203. *Two semester hours.* May be taken for credit twice. *(H, L with FREN-203 or taken twice.)*

FREN-251. Introduction to French Literature *Dr. Lucas, Dr. Novack*

A selection of major French writers from the Middle Ages to the present. Special attention will be given to the socio-cultural context from which their narratives emerged. Students will also be introduced to literary analysis and to formal writing. Prerequisite: FREN-201 or permission of the instructor. Four hours per week. *Four semester hours. (H, L.)*

FREN-252. Le Monde francophone *Dr. Lucas, Dr. Novack, Dr. Trout*

A study of major writers from Francophone countries from the 19th and 20th centuries. This team-taught course will examine how colonization and its aftermath have shaped the issues of language, identity, class and gender in French-speaking literature of Canada, Africa and the Caribbean. Prerequisite: French 201 or permission of instructor. Four hours per week. *Four semester hours.* This course will be offered in the Spring

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term of odd-numbered years and will alternate with FREN-254. (H, L, G.)

FREN-254. Contes et nouvelles Dr. Lucas, Dr. Novack

A study of various short texts, "contes," "nouvelles" and "récits" from French-speaking authors from the 18th century to the present. Emphasis will be placed on the development of the genre as influenced by historical, social and gender issues. Authors selected include Voltaire, Maupassant, Mérimé, Colette, Mandiargues, Roy, Camus, Beauvoir, Hébert, Birago Diop, Sembene and others. Prerequisite: FREN-201 or permission of the instructor. Four hours per week. *Four semester hours.* (H, L)

Note: This course will be offered in the spring term of even-numbered years and will alternate with FREN-252. All 300-level courses are offered in rotation.

FREN-313. French Culture and Society Dr. Lucas

A study of France from the Old Regime to the Second World War. Students will examine social conditions, artistic achievements, and intellectual and philosophical developments. In addition to basic texts, films, slides and original documents will be utilized. Writing assignments and oral presentation are required. Prerequisite: Two courses at the 200 level or permission of the instructor. Four hours per week. *Four semester hours.* (H, L)

FREN-314. France Today Dr. Trout

A study of the forces of change and tradition in contemporary French society through an examination of the political, social and cultural developments of the past 30 years. Prerequisite: Two courses at the 200 level or permission of the instructor. Four hours per week. *Four semester hours.*

FREN-318. Commercial and Economic French Dr. Novack

Study of the economy, business organization and commercial practices of France and French-speaking countries with special attention to France's role in the European Union. Prerequisite: FREN-201, 202 or permission of the instructor. Four hours per week. *Four semester hours.* (H, L)

FREN-328. Advanced Grammar and Translation Dr. Novack

French phonetics, morphology and syntax, with emphasis on problems related to the teaching of the language. Frequent translations focus on structural differences between French and English. Prerequisite: Two semesters at the 200-level. Four hours per week. *Four semester hours.* (H, L)

FREN-335. Independent Study in French Faculty

Individual study of topics in French literature and civilization. May also be used in preparation for research or internship abroad. Prerequisites: Two 200-level courses and permission of instructor. *Two to four semester hours.* (I, if 4 credits.)

FREN-340. 20th-Century Novel Dr. Trout

The development of the French novel of the 20th century from Proust to the writers of the new novel. Authors studied include Colette, Malraux, Sartre, Camus, Beauvoir, Duras and others. Prerequisites: FREN-251; 252 or 254, or permission of the instructor. Three hours per week. *Four semester hours.* (H, L)

FREN-345. Topics in French Faculty

The course focuses on a specific topic or theme not otherwise treated in the curriculum. Topics will vary from year to year. Recent topics have included "Education and Literature" and "Love and Passion in Classic & Romantic Literature." Independent written work is required. Three hours per week. *Four semester hours.* (H, L)

FREN-350. 19th-Century Novel Dr. Novack

The evolution of the French novel with emphasis on Stendhal, Balzac, Flaubert and Zola. Prerequisites: FREN-251; 252 or 254, or permission of the instructor. Three hours per week. *Four semester hours.* (H, L)

FREN-360. 18th-Century Literature Dr. Novack

Human nature, liberty, reason and their limits as seen in Enlightenment writing before the Revolution of 1789. Readings from Voltaire, Diderot, Rousseau, Laclous and others. Prerequisites: FREN-251; 252 or 254, or permission of the instructor. Three hours per week. *Four semester hours.* (H, L)

FREN-370. 17th-Century Classicism Dr. Novack

Classical French literature with emphasis on the theater of Corneille, Molière and Racine. Prerequisites: FREN-251; 252 or 254, or permission of the instructor. Three hours per week. *Four semester hours.* (H, L)

FREN-381. Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact the chair of the department for further details. Prerequisites: Junior standing, three courses in French, and approval of a faculty internship adviser. Twelve to sixteen hours per week. *Four semester hours.* (I.)

FREN-440W, 441W. Seminar in Francophone Literature and Culture *Faculty*

These courses are offered on a rotating basis and subjects will be determined according to students' background and interest. The seminars will take a thematic approach and topics may include the following: "In Search of French Identity," "La condition féminine: Pisan, Sand," "Colonizers and Colonized in French-speaking Africa." These courses satisfy the College requirement of a capstone experience. Prerequisites: FREN-340, or 350, or 360, or 370 or permission of the instructor. MCS-102 is highly recommended. Three hours per week. *Four semester hours.* (H, L)

FREN-491. Research/Independent Work *Faculty*

This course is open to candidates for departmental honors and to other students with the permission of the department chair. This course does not satisfy the College requirement of a capstone experience. *Four semester hours.* (I.)

FREN-492W. Research/Independent Work *Faculty*

A continuation of course 491. This is a writing-intensive course and at least one formal oral presentation is required. This course satisfies the College requirement of a capstone experience. Prerequisites: FREN-491 and permission of the department chair. MCS-102 is highly recommended. *Four semester hours.* (I.)

German

German majors are required to take a minimum of 36 credit hours in German beyond the 100 level. GER-251, 252 and at least one 400-level W course are required, as well as a study abroad experience as approved by the department.

GER-101. Elementary German I *Faculty*

Development of the four skills of listening, speaking, reading and writing. Designed for beginners or students with little or no recent study of the language. Four hours per week plus one conversation hour with the language assistant. *Four semester hours.* (L.)

GER-102. Elementary German II *Faculty*

Continuation of GER-101. Four hours per week plus one conversation hour with the language assistant. *Four semester hours.* (L.)

GER-111. Intermediate German I *Dr. Clouser*

A review of basic grammar concepts and development of listening and communication skills. Texts of social and cultural interest provide the focus for class discussion and writing exercises. Prerequisite: GER102 or equivalent. Four hours per week plus one conversation hour with the language assistant. *Four semester hours.* (L.)

GER-112. Intermediate German II *Dr. Clouser*

A continuation of German 111. A review of selected advanced grammar concepts and further development of listening and communication skills. Prerequisite: GER-111 or equivalent. Four hours plus one conversation hour per week with the language assistant. *Four semester hours.* (L.)

GER-201. Conversation and Composition I *Faculty*

Intensive review of grammar to perfect oral and written communication. Literary texts, newspaper articles, and German films will be discussed. Course includes formal and informal writing exercises and student presentations. Prerequisite: GER-112 or equivalent. Four hours per week plus one conversation hour with the language assistant. *Four semester hours.* (H, L)

GER-202. Conversation and Composition II *Faculty*

Intensive review of grammar to perfect oral and written communication. Course includes formal and informal writing exercises and student presentations. Prerequisite: GER-201 or permission of instructor. Four hours per week plus one conversation hour with the language assistant. *Four semester hours.* (H, L)

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GER-251. Introduction to German Literature *Dr. Clouser*

A survey of the works of major German writers from the Middle Ages to the 18th century. Special emphasis will be given to the socio-cultural context in which their writing is embedded. Students will also be introduced to literary analysis and formal writing. Prerequisite: German 202 or permission of instructor. Four hours per week. *Four semester hours.* (H, L)

GER-252. German Literature and Film *Dr. Clouser*

The works of such 20th-century authors will be discussed in the context of the times in which they were written. Students will analyze these works and familiarize themselves with the politics, art, and film of Germany. Prerequisite: GER-202 or permission of instructor. Four hours per week. *Four semester hours.* (H, L)

GER-253. Das deutsche Märchen *Dr. Clouser*

A study of the German Fairy Tale from the Brothers Grimm through the 20th century. Oral antecedents, the literary fairy tale, and satirical fairy tales will be treated. Prerequisite: GER-251. Three hours per week. *Four semester hours.* (H, L)

Note: 300- and 400-level courses are offered in rotation.

GER-310. Summer Study in Tübingen *Dr. Clouser*

Intensive language study for three to six weeks. Includes classroom study, homestay with a German family, and weekend cultural excursions. Prerequisite: GER-112 or permission of instructor. Open to all majors. *Four to eight semester hours*, depending on length of study. (H, L)

GER-312. Research or Internships in Tübingen *Dr. Clouser*

Independent research projects or internships in conjunction with Tübingen University or local businesses. Students select projects or research according to their interests and preparation. Previous projects include biological fieldwork, lab internship in polymer chemistry, the economics of post-unification Germany, radical right-wing politics, and theater. Prerequisite: GER-112 or permission of the resident faculty. Open to all majors. *Four semester hours.* (L)

GER-313. German Studies in Literature *Dr. Clouser*

Topics vary. Recent topics have included "Early German Cinema" and "Readings in WWII German Literature." Prerequisite: Two of the following courses: GER-201, 202, 251, 252 or permission of instructor. Three hours per week. *Four semester hours.* (H, L)

GER-314. German Studies in Literature and Culture *Dr. Clouser*

A study of German cultural, intellectual, and artistic life from the Middle Ages to the present. Original texts, slides and films supplement the readings. Prerequisites: GER-201, 202 or permission of instructor. Four hours per week. *Four semester hours.* (H, L)

GER-315. Germany Today *Dr. Clouser*

A study of contemporary German politics, economics and society. Special emphasis will be given to social and political changes before and after Reunification. Prerequisites: GER-201, 202 or permission of the instructor. Four hours per week. *Four semester hours.* (SS.)

GER-318. Commercial and Economic German *Dr. Clouser*

Study of the economy, business organization and commercial practices of Germany with special attention to Germany's role in the European Union. Prerequisite: GER-201, 202 or permission of the instructor. Four hours per week. *Four semester hours.* (H, L)

GER-319. Contemporary German Literature *Dr. Clouser*

The 20th-century German short story. Representative short stories from Naturalism to the present with emphasis on the literature since 1945. Prerequisites: GER-251, 252, or permission of the instructor. Three hours per week. *Four semester hours.*

GER-320. German Novelle *Dr. Clouser*

History and development of the German Novelle from Goethe to the 20th century. Prerequisites: GER-251, 252, or permission of instructor. Three hours per week. *Four semester hours.* (H, L)

+GER-328. Advanced German Grammar *Faculty*

In-depth study of German phonetics, morphology and syntax with special emphasis on the problems related to the teaching of the language. Prerequisites: GER-201, 202 or permission of instructor. Four hours per week. *Four semester hours. (H, L)*

GER-335. Independent Study in German *Dr. Clouser*

Individual study of topics in German literature and civilization. Prerequisites: Two 200-level courses and permission of instructor. *Two to Four semester hours. (I, if 4 credits.)*

GER-381. Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact the chair of the department for further details. Prerequisites: Junior standing, three courses in German, and approval of a faculty internship adviser. Twelve to sixteen hours per week. *Four semester hours. (I)*

GER-401W. German Medieval Studies *Faculty*

Works include Parzival, Tristan, the Nibelungenlied and Minnesang. This course satisfies the College requirement of a capstone experience. Prerequisites: GER-251, 252, or permission of the instructor. MCS-102 is strongly recommended. Three hours per week. *Four semester hours. (H, L)*

GER-402W. Classical Literature of the 18th and 19th Centuries *Dr. Clouser*

Writers include Lessing, Goethe, Schiller, Kleist, Keller and Hauptmann. This course satisfies the College requirement of a capstone experience. Prerequisites: GER-251, 252, or permission of the instructor. MCS-102 is strongly recommended. Three hours per week. *Four semester hours. (H, L)*

GER-403W. Advanced Seminar *Dr. Clouser*

Topics vary. This course satisfies the College requirement of a capstone experience. Prerequisites: GER-251, 252, or permission of instructor. MCS-102 is strongly recommended. Three hours per week. *Four semester hours. (H, L)*

GER-491. Research/Independent Work *Faculty*

This course is open to candidates for departmental honors and to other students with the permission of the department chair. This course does not satisfy the College requirement of a capstone experience. *Four semester hours. (I)*

GER-492W. Research/Independent Work *Faculty*

A continuation of course 491. This is a writing-intensive course and at least one formal oral presentation is required. This course satisfies the College requirement of a capstone experience. Prerequisites: GER-491 and permission of the department chair. MCS-102 is strongly recommended. *Four semester hours. (I)*

Italian

ITAL-101. Elementary Italian I *Ms. Steyaert*

Development of the four skills of listening, speaking, reading and writing. Designed for beginners or students with little or no recent study of the language. Four hours per week plus one hour of language conversation or lab work. *Four semester hours. (L)*

ITAL-102. Elementary Italian II *Ms. Steyaert*

Continuation of Italian 101. Prerequisite: ITAL-101 or permission of the instructor. Four hours per week plus one hour of language conversation or lab work. Four semester hours. Note: This course will be offered to the students returning from the Semester in Florence program with sufficient enrollment. *(L)*

Japanese

The Japanese language courses are designed to develop linguistic skills and an understanding of Japanese culture. The study of Japanese is recommended for students interested in majoring in East Asian Studies or International Relations. Students may also pursue a student-initiated major that includes the study of Japanese. In language labs, which are required for all classes, students work with computers, authentic video and audio materials, as well as native speakers. Ursinus is one of two institutions in Pennsylvania to offer a teacher certification program in Japanese.

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JPN-101. Elementary Japanese I *Dr. Mizenko*

An introduction to the Japanese language. The course is designed to introduce the student to the basic rules of spoken and written Japanese while providing basic communicative skills. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (L.)*

JPN-102. Elementary Japanese II *Dr. Mizenko*

Continuation of Japanese 101. The focus is placed on situation-sensitive language use and the systematic introduction of basic grammar and sentence patterns. Basic kanji characters are introduced. Prerequisite: JPN-101 or equivalent. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (L.)*

JPN-111. Advanced Elementary Japanese I *Dr. Mizenko*

Continued introduction of the fundamental structures of spoken and written Japanese. Development of interpersonal communication skills beyond the functional level. Prerequisite: JPN-102 or equivalent. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (L.)*

JPN-112. Advanced Elementary Japanese II *Dr. Mizenko*

Continuation of JPN-111. Development of more sophisticated structures and patterns, moving towards conversational fluency. Continued study of reading and writing, with knowledge of 200-300 kanji characters by end of course. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (L.)*

JPN-211. Intermediate Japanese I *Dr. Mizenko*

Review of basic structures combined with further enhancement of oral and written communication skills. Continued expansion of knowledge of kanji characters, plus development of ability to handle complicated situations. Prerequisite: JPN-112 or equivalent. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (H, L)*

JPN-212. Intermediate Japanese II *Dr. Mizenko*

Continuation of JPN-211. Completion of study of fundamentals of Japanese language. Development of ability to read and discuss authentic texts, and to handle a wide range of conversational situations. Prerequisite: JPN-211 or equivalent. Four hours per week plus one hour of practice with the language assistant. *Four semester hours. (H, L)*

JPN-311. Advanced Japanese I *Dr. Mizenko*

Study of complex linguistic structures in the context of the development of an analytical understanding of the Japanese language. Reading and viewing of advanced-level authentic materials in written and video texts, with an emphasis on a nuanced understanding and an ability to discuss and write about the texts in depth. Three hours per week plus one hour of practice with the language assistant. Prerequisite: JPN-212 or equivalent. *Four semester hours. (H, L)*

JPN-312. Advanced Japanese II *Dr. Mizenko*

Continuation of Japanese 311. Upon completion of this course, students should have developed the resources to handle virtually any conversational situation or modern text. By this point, there will also have been some introduction to pre-modern structures and orthography. Three class hours per week plus one hour of practice with the language assistant. *Four semester hours. (H, L)*

JPN-328. Advanced Japanese Grammar *Faculty*

In-depth study of Japanese phonetics, morphology and syntax with special emphasis on the problems related to the teaching of the language. Prerequisite: JPN-312 or permission of the instructor. Four hours per week. *Four semester hours. (H, L)*

JPN 335. Independent Study in Japanese *Faculty*

Individual study of topics in Japanese literature, society or culture. Prerequisite: JPN-312 and permission of the instructor. *Two to four semester hours. (I, if 4 credits.)*

JPN-381. Internship *Faculty*

An off-campus academic work/experience under the supervision of an internship adviser and an on-site supervisor. Contact the chair of the department for further details. Prerequisites: Junior standing, three courses in Japanese, and approval of a faculty internship adviser. Twelve to sixteen hours per week. *Four semester hours. (I.)*

JPN-491. Research/Independent Work Faculty

This course is open to candidates for departmental honors and to other students with the permission of the department chair. This course does not satisfy the College requirement of a capstone experience. *Four semester hours. (I.)*

JPN-491W. Research/Independent Work Faculty

A continuation of course 491. This is a writing intensive course and at least one formal oral presentation is required. This course satisfies the College requirement of a capstone experience. Prerequisites: JPN-491 and permission of the department chair. MCS-102 is strongly recommended. *Four semester hours. (I.)*

Spanish

Spanish majors are required to take a minimum of 36 credit hours in Spanish at the 200, 300 and 400 levels, excluding SPAN-332. SPAN-251, 252, and at least one 400-level W course are required, as well as a study abroad experience as approved by the department.

SPAN-101. Elementary Spanish I Faculty

Development of the four skills of listening, speaking, reading and writing. Designed for beginners or students with little or no recent study of the language. Four hours per week plus one hour of language laboratory. *Four semester hours. (L.)*

SPAN-102. Elementary Spanish II Faculty

Continuation of SPAN-101. Four hours per week plus one hour of language laboratory. *Four semester hours. (L.)*

SPAN-103. High Beginner Spanish Faculty

This course is intended for students who are experienced learners of Spanish but lack the foundational knowledge for the intermediate level. The course develops the four skills of listening, speaking, reading and writing by emphasizing linguistic and cultural accuracy. This course is normally followed by SPAN-111. Four hours per week plus one hour of language laboratory. *Four semester hours. (L.)*

SPAN-111. Intermediate Spanish I Faculty

A review of the basic grammatical structures of Spanish, with emphasis on the use of tenses and the subjunctive mood, vocabulary development through readings and use of authentic materials, and cultural and elementary literary readings. Prerequisite: SPAN-102 or SPAN-103. Four hours per week plus one hour of language laboratory. *Four semester hours. (L.)*

SPAN-112. Intermediate Spanish II Faculty

Although Intermediate Spanish II is a continuation of Intermediate Spanish I, students may be placed in this course if they can demonstrate a good command of the basic structures of the Spanish grammar. The main focus of this course will be in the strengthening of vocabulary and the written command of the language through the use of authentic materials, literary readings, and writing of short compositions. Prerequisite: SPAN-111 or equivalent. Four hours per week plus one hour of language laboratory. *Four semester hours. (L.)*

SPAN-117. Spanish for Business and Economics Faculty

Designed for students interested in the field of international business. Emphasis will be put on the development of the specialized vocabulary of business and the study of cultural differences between the U.S. and the Hispanic world that may play a role in business relations. This course may be used toward fulfillment of the language requirement. Prerequisite: SPAN-111 or equivalent. Four hours per week. *Four semester hours. (H, L)*

SPAN-200. Spanish Summer Study Abroad Faculty

A four-week total immersion experience abroad, this language-intensive course includes a minimum of 60 hours of classroom study, family residence and travel in a Spanish-speaking country, and is directed by a member of the Ursinus faculty. Offered annually provided there is sufficient enrollment. Possible destinations include Chile, Costa Rica, Mexico, Puerto Rico, and Spain. Prerequisites: SPAN-112 or permission of instructor. Must be taken in conjunction with SPAN-203 when the destination is Mexico. *Four semester hours.*

SPAN-201. Conversation and Composition Dr. de Arana, Dr. Cameron, Dr. Hardin, Dr. Nixon, Dr. Shuru, Dr. Biel

Intensive review of the grammar to perfect oral and written communication. Materials used will be

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predominantly literary (short plays and short stories), but also journalistic. Writing will be both formal and informal. Four hours per week plus one hour of conversation with the language assistant. Prerequisite: SPAN-112 or equivalent. *Four semester hours.* (H, L)

SPAN-202. Topics in Hispanic Literature and Culture *Dr. Cameron, Dr. de Arana, Dr. Nixon, Dr. Shuru, Dr. Biel*

Topics, to be determined by interests of students and faculty, might include the short story, Spanish and/or Latin American film, class, gender, race relations as reflected in literature and/or film, and others. Prerequisite: SPAN-201 or permission of the instructor. Four hours per week. *Four semester hours.* (H, L)*

SPAN-203. Mexican Studies *Faculty*

Study of contemporary Mexico, especially the European and indigenous influences, which have contributed to 20th century Mexican culture. SPAN-203 includes essential information on Mexican geography, history, politics, customs, society, literature, and the arts. Readings include the works of major Mexican writers. Class discussions in Spanish, guest speakers, Mexican Films. Must be taken concurrently with Spanish Summer Study Abroad (SPAN-200) when offered in Mexico. Prerequisite: SPAN-112 or permission of the instructor. *Two semester hours.* (H, L)

SPAN-204.

(See Ursinus in Madrid Program.)

SPAN-207. Spanish Civilization and Culture *Faculty*

A chronological introduction to Spanish history, culture and civilization from its beginnings to the present time. Recommended for students planning to study in Spain. May be taken in place of SPAN-202. Prerequisite: SPAN-201 or permission of the instructor. Four hours per week. *Four semester hours.* (H, L)

SPAN-251. Survey of Spanish Literature *Dr. Cameron, Dr. de Arana, Dr. Biel*

Study of major literary works and genres of Spain from the Middle Ages through the 20th century with special attention given to the literature of the Golden Age, the Generation of 1898, and the post-Civil War period. Prerequisite: SPAN-202 or equivalent. Four hours per week. *Four semester hours.* (H, L)

SPAN-252. Survey of Latin American Literature *Dr. Nixon, Dr. Shuru, Dr. Biel*

Study of major trends in Latin American literature from the Colonial period through the 20th century with emphasis on Latin America's progress toward artistic and literary independence from European models. Prerequisite: SPAN-202 or equivalent. Four hours per week. *Four semester hours.* (H, L, G.)

SPAN-281. Community Practicum *Faculty*

Offered in conjunction with an Ursinus College faculty-directed study abroad program, the community practicum allows eligible students to collaborate with a local organization or business in the target language. Placements will be based on availability, student interest and qualifications. Students will report to an onsite supervisor and the faculty director, keep a journal of their activities, and write a final paper based on their experience. Must be taken in conjunction with or after completion of an intensive language course (such as SPAN-200 or SPAN-204.) This course counts toward the total number of credits required for the major or minor in Spanish. Prerequisites: Sophomore status and permission of instructor. A minimum of 80 contact hours are required. *Two semester hours. Note: 300- and 400-level courses are offered in rotation.*

SPAN-308. Culture and Medicine *Dr. Cameron, Dr. Shuru*

This course is designed for students interested in medicine or allied health fields. Students will use Spanish by engaging in specialized vocabulary and a variety of cultural and technical texts. The content of the course will emphasize traditional medical and non-traditional healing practices. Prerequisite: SPAN-201 or the equivalent. Three hours per week. *Four semester hours.*

SPAN-317. The Hispanic World *Dr. Nixon, Dr. Shuru*

The development of the Hispanic Culture as a conjunction of Eastern and Western experiences and its subsequent expansion and transformation in the Americas. The creation of the American republics, the political and socio-economic crisis of the 20th century and the challenges of the future. Prerequisite: Two of the following: SPAN-201, 202, 251, 252 or permission of the instructor. Four hours per week. *Four semester hours.* (SS, G.)

* *Note: Course can be taken for credit twice.*

SPAN-318. Commercial and Economic Spanish *Faculty*

This course aims to develop cultural sensitivity and to further linguistic competence through the study of the economic situation, business organization and commercial practices of the Hispanic world. Prerequisite: SPAN-201 or 202 or permission of the instructor. Four hours per week. *Four semester hours.* (H, L)*

SPAN-328. Advanced Spanish Grammar *Dr. de Arana*

In-depth study of Spanish phonetics, morphology and syntax with special emphasis on the problems related to the teaching of the language. Prerequisite: SPAN-201 or equivalent. Four hours per week. *Four semester hours.* (H, L)

SPAN/LAS-332. Latin American Studies *Dr. Cameron, Dr. Nixon, Dr. Shuru*

An interdivisional approach to the study of Latin America. The development of the history, politics, society and literature of Latin American nations will be examined. Readings will be selected from the works of major intellectual figures and writers. Emphasis will be on the 20th century. Weekly lectures, films, and class discussions. The language of instruction is English. Open to upperclass students. Four hours per week. *Four semester hours.* (G.)

SPAN-335. Independent Study in Spanish *Faculty*

Individual study of topics in Spanish or Latin American literature or culture. Prerequisites: two 200-level courses and permission of the instructor. *Two to four semester hours.* (I, if 4 credits.)

SPAN-340. Topics in Hispanic Studies *Faculty*

The course explores topics in linguistics, literary, and cultural studies in the Hispanic world. Recent topics have included "Love, Sex and Marriage in Nineteenth-century Spanish Literature" and "Performance and Literature." Prerequisite: SPAN-251 or 252, or permission of the instructor. Three hours per week. *Four semester hours.* (H, L)

SPAN-350. Translation *Faculty*

The theory and practice of translation. The course will cover different types of translation: literary, technical, advertising, from English to Spanish and vice versa. It will have a class project consisting of the translation of a short novel, a play, a collection of short stories or the subtitling of a film. Prerequisites: SPAN-328, or permission of the instructor. Three hours per week. *Four semester hours.*

SPAN-351. Contemporary Hispanic Theater: History, Text and Performance *Faculty*

Study of Spanish and Spanish-American theater from the end of World War II to the present. The course will address the development of the genre, the structure of individual works, as well as the stage techniques. It will also include the production and performance of a short play. Prerequisite: SPAN-251, 252 or permission of the instructor. Three hours per week. *Four semester hours.* (H, L)

SPAN-352. Contemporary Hispanic Novel *Dr. Cameron, Dr. de Arana, Dr. Nixon, Dr. Shuru*

Close readings of texts from a variety of perspectives (including gender, race, class), representing major trends in contemporary fiction (Spain and Latin America). Prerequisite: SPAN-251, 252, or permission of the instructor. Four hours per week. *Four semester hours.* (H, L)

SPAN-381. Internship *Faculty*

An off-campus academic work/experience under the supervision of an internship adviser and an on-site supervisor. Contact the chair of the department for further details. Prerequisites: Junior standing, three courses in Spanish, and approval of a faculty internship adviser. Twelve to sixteen hours per week. *Four semester hours.* (L)

SPAN-401W. Golden Age Literature *Dr. Cameron*

The picaresque and the Comedia of the 16th and 17th centuries. This course satisfies the College requirement of a capstone experience. Prerequisite: SPAN-251, 252, or permission of the instructor. *Four semester hours.* (H, L)

SPAN-402W. Cervantes *Dr. Cameron, Dr. de Arana*

Studies in the structure, sources and the impact of Cervantine prose, with emphasis on the Quijote. This course satisfies the College requirement of a capstone experience. Prerequisites: SPAN-251, 252 or permission of the instructor. MCS-102 is highly recommended. Four hours per week. *Four semester hours.* (H, L)

SPAN-440W. Senior Seminar in Hispanic Studies *Dr. Cameron, Dr. de Arana, Dr. Nixon, Dr. Shuru*

This course satisfies the College requirement for a capstone experience. It will explore topics in linguistic, literary, and cultural studies in the Hispanic world. Prerequisites: SPAN-251, 252 and senior status or permission of the instructor. MCS-102 is highly recommended. Three hours per week. *Four semester hours.* (H, L)

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SPAN-491. Research/Independent Work *Faculty*

This course is open to candidates for departmental honors and to other students with the permission of the department chair. This course does not satisfy the College requirement of a capstone experience. *Four semester hours. (I.)*

SPAN-492W. Research/Independent Work *Faculty*

A continuation of course 491. This is a writing-intensive course and at least one formal oral presentation is required. This course satisfies the College requirement of a capstone experience. Prerequisites: SPAN-491 and permission of the department chair. MCS-102 is highly recommended. *Four semester hours. (I.)*

Ursinus in Madrid

An Ursinus faculty member directs this full immersion program, designed to provide participants with a variety of sustained and meaningful interactions with native Spanish-speakers. The program targets three overlapping groups of students: those who are interested in continuing the study of Spanish beyond the language requirement, those who wish to major or minor in Spanish, and those who desire an internship-like experience in an international setting. **Rising sophomores, juniors and seniors** who will have completed SPAN 111-112 or higher before the program begins are eligible to apply. All courses are conducted in Spanish. Offered every fall semester depending on enrollment.

In order to facilitate language acquisition and integration in the local culture, this program places all participants in carefully selected family homestays.

Students earn a total of 16.0 credits in Spanish, consisting of SPAN 204 (8.0), SPAN 281 (2.0), SPAN 335 (2.0) and an additional 4.0 credits at the 200 or 300 level. All courses count toward a Spanish minor or major.

The following course is offered only in Madrid.

SPAN-204. Intensive Spanish *Faculty*

An intensive review of Spanish grammar and further development of reading, writing and speaking skills in the language. Eight hours per week. *Eight semester hours. (H, L)*

Music

Professor French (Chair); Assistant Professor Gaines; College Organist Alan Morrison.

Requirements for Minor

A minor concentration in music consists of a minimum of five courses in music. Two courses must be selected from MUS-100, 205, 206, 207, 208 and 307. An additional two courses must be selected from MUS-121, 222, 225 and 308.

MUS-100. Introduction to Music *Dr. Gaines*

A course in perceptive listening intended to heighten the student's awareness and understanding of music through an examination of its basic elements — tone color, texture, melody, rhythm and style. The course involves intensive required listening assignments as a means of achieving the awareness and understanding of these elements. Music reading ability suggested. Three hours per week. *Four semester hours. (A.)*

MUS-121. Fundamentals of Music *Dr. French*

An introductory course in music theory which presents essential basic concepts, from standard notation and scales to harmonization and motivic structure. Additional emphasis on the acquisition of aural skills through ear-training exercises. Music reading ability suggested. Three hours per week. *Four semester hours. (A.)*

MUS-205. History of Music I *Dr. French*

A study of music from its early origins through 1800. Intensive listening assignments and research projects are required in the course. Three hours per week. *Four semester hours. (A.)*

Note: Students may not receive credit for MUS-205 and MUS-201 or 202.

MUS-206. History of Music II *Dr. French*

A study of music from 1800 to the present. Intensive listening assignments and research projects are required in the course. Three hours per week. *Four semester hours. (A.)*

MUS-207. History of Jazz *Dr. Gaines*

A survey of the development of jazz from its African origins through the present. The course will include intensive listening and research assignments, video presentations, and a final research paper. Three hours per week. *Four semester hours. (A., D.)*

MUS-208. World Music *Dr. Gaines*

This course traces the development of world musics by examining significant works of music and the cultural and political milieu in which the works were composed. Students will develop an understanding of musical terminology and will develop skills needed to listen to and better understand music of varying cultures. Students will participate in a variety of activities, including singing, playing instruments and dancing. This course has an intensive listening component, which requires students to listen to music both in and out of class, and to report responses to this listening. Three hours per week. *Four semester hours. (A, G.)*

MUS-222. Harmony *Dr. French*

A study of the materials and practices of tonal harmony through the examination of the techniques of four-part writing. Additional emphasis on the acquisition of aural skills through ear-training exercises. Prerequisite: MUS-121 or by permission. Three hours per week. *Four semester hours. (A.)*

MUS-225. Jazz Theory *Faculty*

A study of the melodic, harmonic and rhythmic practices in jazz and how these principles are also applicable to various genres of contemporary music. The course includes analysis of representative chord progressions and compositions. Emphasis will be placed on student projects in jazz composition. Prerequisite: MUS-121 or by permission. Three hours per week. *Four semester hours. (A.)*

MUS-307. Topics in Music History *Dr. French*

A study of a specific period of genre of music such as the Second Viennese School, Late Beethoven, American Opera, and others. The course will place emphasis on independent research as well as required listening. Prerequisite: Appropriate 200-level music history course or by permission. Three hours per week. *Four semester hours. (A.)*

MUS-328. Topics in Music Theory *Faculty*

A study of a specific style or school of composition such as counterpoint, serial music, chromatic harmony and others. The course will place emphasis on independent research as well as required listening. Prerequisite: Appropriate 200-level music theory course or by permission. Three hours per week. *Four semester hours. (A.)*

MUS-401. Special Projects in Music *Faculty*

Advanced independent work on a creative, historical or theoretical project supervised and approved by a faculty adviser. *Four semester hours. (A, I.)*

Ensembles and Lessons**MUS-001-008. Ursinus College Choir** *Dr. French*

A large choral ensemble open to everyone in the College community. The College Choir performs three or four major works each year, including performances of Handel's Messiah in the fall semester. Graded S/U. Two to three hours per week. *One semester hour. (A, if four semester hours are completed.)*

MUS-011-018. Meistersingers *Dr. French*

A small choral ensemble open by audition to all students. The repertoire represents diverse styles and cultures suitable to a smaller ensemble. Graded S/U. Three to four hours per week. *One semester hour. (A, if four semester hours are completed.)*

MUS 021-028. Ursinus College Wind Ensemble. *Faculty*

A large instrumental ensemble open to everyone in the College community. Members perform works from standard band repertoire, transcriptions of important orchestral works, and new compositions. The Wind Ensemble presents two major concerts each year and may appear at campus functions. Graded S/U. Two to three hours per week. *One semester hour. (A, if four semester hours are completed.)*

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MUS-031-038. Ursinus College Jazz Ensemble *Dr. Gaines*

A big band open by audition to all students. The ensemble performs arrangements and original compositions in a variety of jazz styles. The Jazz Ensemble presents two major concerts each year and may appear at campus functions. Graded S/U. Music lessons fee. Two to three hours per week. *One semester hour. (A, if four semester hours are completed.)*

MUS-041-048. Applied Music Lessons *Faculty*

This course provides private music instruction for one hour each week, focusing on technique and performance practice. The course will give students the opportunity to continue their growth as musicians. One hour per week. *One semester hour. (A, if four semester hours are completed.)*

Neuroscience

Professors Chambliss (*Psychology*), E.Dawley (*Biology*), Rideout (*Psychology*), Sidie (*Biology*); *Associate Professors* Bailey (*Biology*), Cellucci (*Physics*), Kohn (*Biology*), *Assistant Professors*, Bish (*Program Coordinator*), Florka (*Philosophy*), Principe (*Psychology*).

Neuroscience is a rapidly expanding multidisciplinary field devoted to understanding the complex functioning of the nervous system. Neuroscience attempts to understand the neural substrates of both normal and abnormal patterns of behavior as well as mental events and mental states. The Neuroscience major is designed for students interested in exploring how the nervous system contributes to thought, emotion, neuropathology, and behavior. This major integrates the multidisciplinary nature of the field by providing students with an interdisciplinary approach to the study of brain function, behavior, and the mind.

The courses in the neuroscience curriculum are selected from an array of disciplines. The following areas of study contribute to the interdisciplinary perspective of the major: biology, biochemistry and molecular biology, chemistry, computer science, exercise and sports science, philosophy, psychology, and physics.

Neuroscience majors will graduate with a Bachelor of Science that will prepare them for a career in government, industry, biomedical and medical settings or some combination of these. Neuroscience majors often pursue graduate work (at the M.A. or Ph.D. level) in behavioral neuroscience, biology, biochemistry, cognitive science, experimental psychology, neuroanatomy, neurobiology, neuropharmacology, neurophysiology, occupational therapy, physical therapy, toxicology, or medicine (e.g. M.D., D.O., D.P.M., M.D./Ph.D., D.V.M., Pharm.D., D.D.S., O.D., etc.). More recently, graduates with a B.S. in Neuroscience have found career paths in the field of human factors, academic research, pharmaceutical research, and with government agencies.

Requirements for Majors

To fulfill the requirements of the major, all students must complete a minimum of 56 semester hours in the neuroscience curriculum as outlined below.

I. Required Neuroscience Core: (16 semester hours)

NEUR/PSYC-325, NEUR/PSYC-335, NEUR/BIO-431W or NEUR/BCMB/BIO-433W, NEUR-499.

II. Interdisciplinary foundation: (20 semester hours)

PSYC-100, BIO-101Q, BIO-102Q, and choose either a Chemistry Foundation (CHEM-105 and CHEM-105L and either CHEM-106 and CHEM-106L, or CHEM-206 and CHEM-206L) or a Physics Foundation (PHYS-111 and PHYS-112).

Students interested in a more traditional background to Neuroscience are encouraged to choose the Chemistry Foundation to fulfill the Interdisciplinary Foundation. Students interested in more mathematical aspects of Neuroscience (e.g. modeling, biomechanics, etc.) are encouraged to choose the Physics Foundation to fulfill the Interdisciplinary Foundation.

III. Laboratory Experience: (one semester hour)

Choice of BIO-232a, NEUR/PSYC-327, or NEUR/PSYC-337.

IV. Neuroscience Electives

Neuroscience majors must take a minimum of 15 credit hours of approved major elective courses. Majors are required to choose one course from each elective group (Psychology, Biology, and Breadth). The remaining credit hours may be filled by courses from any of the three elective groups. Students are encouraged to take advantage of the interdisciplinary nature of the neuroscience major and choose elective courses from the Breadth Group.

V. Research Experience: (four semester hours)

Choose between NEUR-481W, NEUR-482W, NEUR-491W, or NEUR-492W.

VI. Recommended of all majors

MATH-241Q and MATH-243.

Neuroscience Electives

Breadth Group

NEUR-120Q	CS-173	PHIL-278
NEUR-350	DANC-340	* PHIL-309
BCMB-351	ESS-351	PHIL-364
+ CHEM-106/106L	MATH-235	PHIL-374
CHEM-205/205L	MATH/PHIL-260	@PHYS-111
+ CHEM-206/206L	PHIL-274	PHYS-209

Biology Group

BIO-201W
BIO-232
BIO-305
Either BIO-306 or BIO-349
* BIO-350

Psychology Group

PSYC-260
PSYC-320
PSYC-330
PSYC-340
PSYC-345
PSYC-450
PSYC-480

Notes

* (BIO-350, PHIL-309) may be used as a major elective when the topic(s) covered are related to Neuroscience. Approval of the Neuroscience Coordinator required.

+ A student taking CHEM-106/106L may not use the course to count as credit towards both the chemistry foundation and neuroscience electives.

+ A student taking CHEM-206/206L may not use the course to count as credit towards both the chemistry foundation and neuroscience electives.

@ A student taking PHYS-111 may not use the course to count as credit towards both the physics foundation and neuroscience electives.

Requirements for Minor

A minor concentration in neuroscience consists of either NEUR-120Q or PSYC-100; MATH-241Q or PSYC-110; any three courses from the following list: PSYC-320; NEUR/PSYC-325; NEUR/PSYC-335, NEUR/BIO-431, or any one of NEUR-481W, NEUR-482W, NEUR-491, NEUR-492W, NEUR/PSYC-327 is recommended but not required.

Special Career Interests

- I. Students seeking admission to more experimental psychology related graduate programs should note the following:
 - A. PSYC-110 and 210 are recommended.
 - B. Two additional upper level (300-400) psychology courses germane to their area of interest/specialization are recommended. Students should consult with the Neuroscience Coordinator.
- II. Students seeking admission to more biologically related graduate programs should note the following:
 - A. A second year of chemistry is strongly recommended.
 - B. A fifth course in chemistry is recommended.
 - C. MATH-241Q; 242 or 243, and CS-173 are recommended.
- III. Students seeking admission to schools of medicine, dentistry, veterinary medicine, optometry and podiatry should note the following:
 - A. Two years of chemistry and one year of general physics for science majors are required by all of the above schools.
 - B. Many schools also require one full year of English and some specify one or two semesters of calculus.
 - C. Students and their advisers should consult the premedical handbook or one of the premedical advisers for requirements of specific schools.
- IV. Students seeking admission to other health science programs, such as physical therapy, occupational therapy, or physician's assistant, should consult the allied health adviser.
- V. Students who seek employment in a biologically oriented profession should note the following:
 - A. MATH 241Q; 242 or 243, and CS-173 are strongly recommended.
 - B. Economics and Business Administration 100 and 105 are recommended.
 - C. Additional coursework in Media and Communication Studies is recommended.
 - D. Additional coursework in English composition is recommended.

NEUR-120Q. The Brain and its Mind *Dr. Bish*

An introduction to the study of brain and behavior. Topics discussed include brain structure and function and its connection to language, arts, and music as well as the neural basis of consciousness, thought, learning, and locomotion. Prerequisites: Enrollment limited to students with freshmen or sophomore standing. This course may be used to satisfy the laboratory science requirement. Three hours of lecture and three hours of laboratory per week. *Four semester hours. (LS.)*

NEUR-301. Readings in Neuroscience *Faculty*

Individual study of one or more selected topics in the neuroscience literature, and preparation of an annotated bibliography of a detailed proposal for subsequent research. To register for this course, the student must have the consent of a member of the neuroscience faculty to serve as adviser. *One semester hour.*

NEUR/PSYC-325. Behavioral Neurosciences *Dr. Bish*

A study of the structure and function of the vertebrate nervous system, particularly of the neural substrates of behavior as well as cerebral lateralization of function. Topics include evolutionary, anatomical, and physiological approaches to the nervous system and behavior. Prerequisites: Psychology 100; Biology 101Q or permission of the instructor. Three hours per week. *Four semester hours. (SS.)*

NEUR/PSYC-327. Neurosciences Laboratory *Dr. Rideout*

A study of nervous system structure and function emphasizing human electrophysiological signal recording and manipulation. Topics include gross neuroanatomy; electrophysiological signal characteristics, recording and analysis; and biofeedback programming. Prerequisite: Permission of the instructor. Two hours per week. *One semester hour.*

NEUR/PSYC-335. Applied Cognitive Neuroscience *Dr. Bish*

A review of contemporary neuroscience research and theory with special attention to its interdisciplinary (psychology, biology, medicine, and engineering) and applied nature. Topics include robotics, electronic implants, virtual environments, eye movements, spatial orientation, body posture and balance, multisensory representations of space, and higher order cognitive deficits. Prerequisites: NEUR/PSYC-325 or Biology 305 or permission of the instructor. Three hours per week. *Four semester hours. (SS.)*

NEUR/PSYC-337. Applied Cognitive Neuroscience Laboratory *Dr. Bish*

An experimental investigation of higher order cognitive function and the practical application of the experimental results. Topics include virtual and terrestrial navigation, eye movement recordings, three-dimensional analysis of body posture and balance, and object recognition and identification. Prerequisites: Permission of the instructor. Two hours per week. *One semester hour.*

NEUR-350. Special Topics in Neuroscience *Faculty*

A special course offering intended to familiarize the student with the current trends and special topics in neuroscience. Emphasis will be given to the preparation and oral presentation of papers on selected topics as well as related laboratory experience (when applicable). Prerequisite: Permission of the instructor. Three hours per week. *Four semester hours.*

NEUR-381. Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact Neuroscience Coordinator for further information. Prerequisites: Junior standing, 9 credit hours in neuroscience, and approval of a faculty internship adviser. A total of 160 contact hours. *Four semester hours. (I.)*

NEUR-391. Directed Research *Faculty*

An introduction to the nature of neuroscience research. A laboratory experience under the direction of a neuroscience faculty member and designed to introduce students to fundamental research procedures and data manipulation in the context of an original research project. Prerequisites: Permission of a member of the neuroscience faculty to serve as adviser. Three hours of laboratory per week. Graded S/U. *One semester hour.*

NEUR-392. Directed Research *Faculty*

Content as in Neuroscience 391, but offered in the spring term. Prerequisites: Permission of a member of the neuroscience faculty to serve as adviser. Three hours of laboratory per week. Graded S/U. *One semester hour.*

NEUR/BIO-431W. Cellular Neurobiology *Dr. Sidie*

A study of neuron structure and function. The course includes excitable cell membranes, ion channels, synapses, sensory receptors, neuronal integration, neuromuscular systems, coding of neural information, and computer simulation of neural systems. Prerequisites: Biology 201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (LS.)*

NEUR/BCMB/BIO-433W. Molecular Neurobiology *Dr. Kohn*

A study of the cellular and molecular basis of neuronal function. The course includes properties of neurons, release of neurotransmitters, receptors in synaptic transmission, effects of drugs, synaptic plasticity, and neurological disorders. Prerequisites: Biology 201W; or permission of the instructor. Three hours of lecture; three hours of laboratory per week. *Four semester hours. (LS.)*

NEUR-481W. Independent Research in Neuroscience *Faculty*

Investigations of an experimental, clinical, or theoretical nature pursued independently by the student. The preparation of a written and oral scientific report is required. To register for the course, a student must have the consent of a participating neuroscience faculty member to serve as research adviser. Prerequisite: Junior or senior standing, and permission of a member of the neuroscience faculty to serve as research adviser. *Four semester hours. (I.)*

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NEUR-482W. Independent Research in Neuroscience *Faculty*

Content as in Neuroscience 481, but offered in the spring term. Prerequisite: Junior or senior standing, and permission of a member of the neuroscience faculty to serve as research adviser. *Four semester hours. (I.)*

NEUR-485. Off-campus Research *Faculty*

An approved, off-campus clinical or laboratory research experience supervised by a neuroscience faculty adviser and an on-site supervisor. Approved projects result in the preparation of a final written thesis and an oral presentation of its results before a faculty/student colloquium. Prerequisite: Junior or senior standing and permission of a member of the neuroscience faculty to serve as research adviser. Eleven to fourteen hours per week. Graded S/U. *Four semester hours. (I.)*

Note: Students having received credit for Neuroscience 381 may not receive credit for Neuroscience 485.

NEUR-486. Off-campus Research *Faculty*

Content as in Neuroscience 485. This course continues the original work begun in Neuroscience 485. Prerequisites: Neuroscience 485, junior or senior standing and permission of a member of the neuroscience faculty to serve as research adviser. Graded S/U. *Four semester hours.*

Note: Students having received credit for Neuroscience 381 may not receive credit for Neuroscience 486

NEUR-491W. Honors Research in Neuroscience *Faculty*

This course is open to candidates for Neuroscience Honors. The content is the same as in NEUR 481. The preparation of a written and oral scientific report is required. Prerequisite: Junior or senior standing, and permission of a member of the neuroscience faculty to serve as research adviser. *Four semester hours. (I.)*

NEUR-492W. Honors Research in Neuroscience *Faculty*

A continuation of Neuroscience 491. Prerequisite: Neuroscience 491 and permission of a member of the neuroscience faculty to serve as research adviser. *Four semester hours. (I.)*

NEUR-499. Neuroscience Capstone Colloquium *Dr. Bish*

This colloquium is designed as an integrating experience for graduating Neuroscience majors. The neuroscience faculty and students will examine how the foundations of neuroscience weave through the vast array of interdisciplinary courses offered in the major. Special attention will also be paid to current issues from the neuroscience literature and the impact of these research findings on the current and future state of the discipline. Prerequisite: Enroll during spring semester of senior year. Three hours per week. *Four semester hours.*

Pennsylvania German Studies

Professor Gallagher (Coordinator).

The purpose of Pennsylvania German Studies (PGS) is to examine the origins and values of the Pennsylvania Germans (or Pennsylvania Dutch), their history, customs, arts and folklore. The program aims to increase awareness of cultural aspects of the Pennsylvania Germans; to compare their folk culture with that of other peoples. The Pennsylvania German archives in Myrin Library and the art and artifacts in the Berman Museum of Art offer special opportunities for study and enrichment.

Requirements for Minor

A minor in Pennsylvania German Studies consists of Pennsylvania German Studies 100 and 13 additional credits in PGS.

PGS-100. Pennsylvania German Culture *Faculty*

A study of the history, culture and societies of the Pennsylvania Germans, their influence on early American life and their adjustments to the modern world. Three hours per week. *Three semester hours. (SS.)*

PGS-203. Pennsylvania German Folklife *Faculty*

Classroom study and field techniques related to the folklore, folklife, and folk culture of the Pennsylvania Dutch country. Prerequisites: PGS-100, or ANTH-100, or HIST-213. Three hours per week. *Three semester hours. (SS.)*

PGS-204. Topics in Pennsylvania German Studies *Faculty*

A course focusing on special topics in Pennsylvania German studies. Prerequisite: Permission of instructor. Three hours per week. *Three semester hours. (SS.)*

PGS-306. Pennsylvania German Art *Faculty*

Pattern, symbolism and content in Pennsylvania German folk art. Formal painters of Pennsylvania German origin. Three hours per week. *Three semester hours. (A.)*

PGS-310. Religious Experiences of the Pennsylvania Germans *Faculty*

This course will examine the varieties of religious sects, denominations and institutions of the Pennsylvania Germans, their attitudes toward religion, as well as the transition to 20th-century religious forms. Prerequisite: Permission of instructor. Three hours per week. *Three semester hours. (H.)*

PGS-351. Independent Study *Faculty*

Research involves directed readings and research on a topic in Pennsylvania German Studies. Prerequisites: PGS-100 and permission of the instructor. *Three semester hours. (I.)*

Philosophy and Religious Studies

Professors Goetz (*Chair*), Stern; *Associate Professors* Florka, Rein, von Schlegell; *Assistant Professors* Rice, Sorensen.

The department of philosophy and religious studies comprises two independent programs of study, offering a major and minor in philosophy and a minor in religious studies.

Philosophy

Socrates claimed that "the unexamined life is not worth living," and Aristotle said that philosophy begins in wonder. In fact, philosophical reflection is unavoidable. Fundamental questions and puzzles about the ultimate nature of the world and the mind's place in it, the possibility of free will, the constituents of consciousness and intentional action, the foundations of moral judgment, and the character of justice animate our deepest thinking and structure our approach to life. The American philosopher William James said that philosophy is "nothing but an unusually obstinate effort to think clearly." That accurately describes our courses. Applying distinctively philosophical methods in studying both historical figures like Aristotle and Descartes and the best contemporary work, students learn to think rigorously, critically and creatively and to express their ideas effectively.

Religious Studies

Religious studies minors develop an informed awareness of the world's religious traditions through the scholarly and theoretical study of religious ideas, practices, and communities, both contemporary and historical. Courses in religious studies also examine the critical role of religion in the world today. By taking courses in religious studies, the student will gain a critical knowledge of the reality of religious difference and acquire expertise in the skills of interpreting and analyzing religious practices, texts, and artifacts.

Requirements for Philosophy Major

A major in philosophy requires Philosophy/Mathematics 260 (Logic); and either Philosophy 237 (Political Philosophy) or 240 (Ethics) or 340 (Metaethics); and six other four-credit courses (with at most one from the 100-level); and one of the following: 404W, 437W.

Requirements for Philosophy Minor

A minor concentration in philosophy requires Philosophy 260 (Logic); and either Philosophy 237 (Political Philosophy) or 240 (Ethics) or 340 (Metaethics); and three other four-credit courses (with at most one from the 100-level).

Note: With the permission of the Department Chair, a student may take History 341 to fulfill requirements for a major or minor in philosophy.

PHIL-100. Introduction to Philosophy *Dr. Florka, Dr. Goetz*

An introductory examination of many of the central issues in philosophy. Among the topics that may be discussed are: free will and determinism, skepticism about knowledge, the existence of God, the nature of the mind and its relation to the body, the ground of moral judgment, and the relation of language and thought to each other and to the world. Three hours per week. *Four semester hours. (H.)*

PHIL-106. The Meaning of Life *Dr. Florka, Dr. Goetz*

A philosophical examination of whether life has a purpose or is absurd and meaningless. Particular attention is given to what it means for something to have a purpose, what are possible sources of a purpose, and the issues of the afterlife and God. Three hours per week. *Four semester hours. (H.)*

PHIL-107. Philosophical Issues in Gender and Sexuality *Dr. Florka, Prof. Rice*

A philosophical exploration of gender and sexuality, including an examination of the nature of sexual desire and behavior, of whether gender and sexuality are natural features or social constructions, and of the controversies surrounding same-sex marriages, sexual harassment, pornography and other topics. Three hours per week. *Four semester hours. (H.)*

PHIL-140. Applied Ethics *Prof. Rice*

An examination of the virtues of compassion, gratitude, and love, and the application of ethics to concerns of social justice such as just war, animal rights, and capital punishment. The course includes a preparatory overview of major ethical theories. Three hours per week. *Four semester hours. (H.)*

PHIL/RELS-220. Philosophy of Religion. *Dr. Goetz, Dr. Rein*

A philosophical study of both belief itself as a psychological attitude and what has been believed about God. Particular attention is given to such questions as whether or not belief is a matter of choice and whether or not one must have a reason to believe in God. Questions about the natures of God and man, evil and immortality are also addressed. Three hours per week. *Four semester hours. (H.)*

PHIL/POL-237. Political Philosophy *Dr. Marks, Dr. Stern*

This course examines the nature of justice through a careful reading of major works in the history of political philosophy. Specifically, we will consider selected political writings of Plato, Aristotle, Machiavelli, Hobbes, Locke, and Marx. Three hours per week. *Four semester hours. (SS.)*

NOTE: Every year, one section of this class will be offered as POL-237W. Students in this section will be required to do extensive writing and revision of papers. Enrollment is limited to freshman or sophomore Politics majors, or by permission of instructor. Majors are encouraged to enroll in POL-237W if they intend to take the senior seminar in Political Philosophy, POL-437W.

PHIL-240. Ethics *Dr. Florka, Dr. Goetz, Prof. Rice, Dr. Sorensen*

A study of the theories of ethical relativism, psychological and ethical egoism, altruism, utilitarianism, Kantian deontology, and virtue theory, and of various views on the human good, virtue, the role of motive and consequences in determining right and wrong conduct, and the like. (Formerly PHIL-204.) Three hours per week. *Four semester hours. (H, G.)*

Note: Students who have received credit for the former PHIL-204 may not enroll in PHIL-240.

PHIL-246. Biomedical Ethics *Dr. Sorensen*

An introduction to and examination of some major issues in bioethics, including abortion, euthanasia, surrogate motherhood, informed consent, doctor/patient confidentiality, medical futility, the distribution of health care resources, genetic engineering, prenatal testing, stem cell research, and medical experimentation. Three hours per week. *Four semester hours. (H, D.)*

PHIL-247. Business Ethics *Faculty*

An examination of some major issues in business ethics, including duties to consumers and investors, duties between employers and employees, the ethics of advertising and marketing, accounting and finance ethics, hiring and firing, justice and the market system, the problem of public goods, social responsibility and stakeholders, whistleblowing, conflicts of interest, and the environment. Three hours per week. *Four semester hours. (H)*

PHIL/ENV-248. Environmental Ethics *Dr. Sorensen*

The central issue in environmental ethics concerns what things in nature have moral standing and how conflicts of interest among them are to be resolved. After an introduction to ethical theory, topics to be covered include anthropocentrism, the moral status of non-human sentient beings, preservation of endangered species and the wilderness, holism versus individualism, and the land ethic. (Formerly PHIL315.) Three hours per week. *Four semester hours. (H.)*

PHIL-254. Early Modern Philosophy *Dr. Florka*

An examination of the major works of four or more of the major European philosophers of the seventeenth and eighteenth centuries. Among the candidates for study are Descartes, Spinoza, Leibniz, Malebranche, Locke, Berkeley, Hume, Reid, and Kant. Three hours per week. *Four semester hours. (H.)*

PHIL/MATH-260. Logic *Dr. Florka, Dr. Goetz*

An introduction to the concepts and techniques used in symbolic reasoning, primarily through the study of first-order logic, the translation of sentences of ordinary English into a formal language, and the construction of derivations. Topics include: formalization, proofs, mathematical induction, propositional and predicate logic, quantifiers, and sets. (Formerly PHIL-202.) Three hours per week. *Four semester hours. (M.)*

Note: Students who have received credit for MATH-236W or the former PHIL-202 may not enroll in PHIL-260.

PHIL-274. Philosophy of Mind *Dr. Florka, Dr. Goetz*

An examination of various arguments for and against different views of what a person or self is. Attention is given both to the claim that a person is a soul or mind which is distinct from its physical body and to the conflicting assertion that a self is identical with its body or brain. (Formerly PHIL-303.) Three hours per week. *Four semester hours. (H.)*

Note: Students who have received credit for the former PHIL-303 may not enroll in PHIL-274.

PHIL-276. Freedom and Determinism *Dr. Florka, Dr. Goetz*

An examination of what human action is, how it is explained, and whether it is free or determined. The examination raises such issues as how explanations in science are related to explanations of human behavior in terms of reasons, whether there is a science of human behavior, and for what, if any, behavior human beings are responsible. (Formerly PHIL-305, Philosophy of Action.) Three hours per week. *Four semester hours. (H.)*

Note: Students who have received credit for the former PHIL-305 may not enroll in PHIL-276.

PHIL-278. Theory of Knowledge *Dr. Florka, Dr. Stern*

An examination of competing theories of knowledge and epistemic justification (foundationalism, coherentism, and externalism) with special attention to the problems of skepticism and the riddle of induction. Three hours per week. *Four semester hours. (H.)*

PHIL-279. Theory of Perception *Dr. Florka*

A philosophical examination of perception, including the analysis of the senses and the content of perceptual experience, the role of consciousness and of beliefs and concepts in perception, the arguments for and against sense-data and sensations, and the relation of perception and action. Three hours per week. *Four semester hours. (H.)*

PHIL-301. Reading in Philosophy *Faculty*

Individual study of one or more selected topics in the philosophical literature. May include preparation of a bibliography for a proposal for subsequent research. Requires consent of a member of the department who will serve as adviser. This course is graded S/U. *One semester hour.*

PHIL-302. Reading in Philosophy *Faculty*

Individual study of one or more selected topics in the philosophical literature. May include preparation of a bibliography for a proposal for subsequent research. Requires consent of a member of the department who will serve as adviser. This course is graded S/U. *Two semester hours.*

PHIL-309. Selected Topics in Philosophy *Faculty*

The course will concentrate on special issues, movements, and leading figures in philosophy. Three hours per week. *Four semester hours. (H.)*

PHIL/POL-337. Classical Political Philosophy *Dr. Stern*

This course examines the classical understanding of politics through a careful reading of selected works of Plato and Aristotle. We will consider such issues as the nature of justice, the meaning of moral and intellectual virtue, and the relation between philosophy and politics. Prerequisite: POL-237. Three hours per week. *Four semester hours. (SS.)*

PHIL/POL-338. Modern Political Philosophy *Dr. Stern*

This course examines and evaluates the world-revolutionary challenge to classical and medieval political philosophy posed by such writers as Machiavelli, Hobbes, Spinoza, Locke, Rousseau and Hegel. Prerequisite: POL-237. Three hours per week. *Four semester hours. (SS.)*

PHIL/POL-339. Contemporary Political Philosophy *Dr. Stern*

This course examines selected authors and issues in contemporary political philosophy. We will read the works of such authors as Nietzsche, Heidegger, Kojève, Rawls and Foucault. We will consider such issues as historicism, contemporary liberalism, feminism, and Marxism. Prerequisite: POL-237. Three hours per week. *Four semester hours. (SS.)*

PHIL-340. Metaethics *Dr. Sorensen*

A close examination of one or more controversial issues and theories in metaethics. Among the possible topics are: the nature of moral theory, the foundations of normative judgment, the "internalism" or "externalism" of practical reasoning, realism vs. anti-realism in ethical theory, the roles of reason and emotion in morality, moral skepticism, virtue theory, utilitarianism, and Aristotelian or Kantian moral views. Three hours per week. *Four semester hours. (H.)*

PHIL-344. Topics in Ethics *Dr. Sorensen*

An intensive investigation of one or more topics in ethics—such as well-being, autonomy, rights, consequentialism, Kantian ethics, virtue ethics, and other topics. Three hours per week. *Four semester hours. (H.)*

PHIL-351. Topics in Ancient and Medieval Philosophy *Dr. Florka, Dr. Stern*

An examination of one or more philosophers of the classical and medieval periods (for example, Plato, Aristotle, Augustine, Aquinas, Duns Scotus, Ockham), or a study in a single area such as metaphysics, ethics, or the theory of knowledge in several of the philosophers. Three hours per week. *Four semester hours. (H.)*

PHIL-354. Topics in Modern Philosophy *Dr. Florka, Dr. Stern, Dr. Sorensen*

An examination of one or more philosophers of the period from 1600 to 1900 (for example, Descartes, Locke, Leibniz, Hume, Kant, Hegel, Schopenhauer, Nietzsche), or a study in a single area such as metaphysics, ethics, or the theory of knowledge in several of the philosophers. Three hours per week. *Four semester hours. (H.)*

PHIL-356. Descartes *Dr. Florka*

A close study of the philosophy of René Descartes through reading his major works and some responses to and criticisms of his ideas. Three hours per week. *Four semester hours. (H.)*

PHIL-360. Advanced Logic *Dr. Florka*

A continuation of PHIL/MATH-260. Includes: further study of the logic of quantifiers and appropriate methods of proof, and working through the proofs of the Completeness and Soundness Theorems for propositional logic and first-order logic. Three hours per week. *Four semester hours. (H.)*

PHIL-364. Philosophy of Language *Dr. Florka, Dr. Goetz*

An examination of the notions of truth, meaning, reference, and language use, including the distinctions between sense and denotation, synonymy and analyticity, direct and indirect discourse, and natural and non-natural meaning. Prerequisite: PHIL/MATH-260 (Logic) or permission of instructor. Three hours per week. *Four semester hours. (H.)*

PHIL-370. Topics in Metaphysics and Epistemology *Dr. Florka, Dr. Goetz, Dr. Stern*

An intensive investigation of a few topics in metaphysics—such as personal identity, possibility and necessity, universals and particulars, causality—or in epistemology—such as skepticism, a priori knowledge, the problem of induction, knowledge as justified true belief. Three hours per week. *Four semester hours. (H.)*

PHIL-374. Consciousness and Thought *Dr. Florka*

An exploration of past and present philosophical studies of the nature of conscious awareness and the relation of the mind to the world. May include consideration of problems about perception, intentionality, representation, and rationality. *Four semester hours. (H.)*

PHIL-381. Internship *Faculty*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact the chair of the department for further details. Prerequisites: junior or senior standing and approval of a faculty internship adviser. Eleven to 14 hours per week. *Four semester hours. (I.)*

PHIL-404W. Senior Seminar in Philosophy *Faculty*

The aim of this capstone course is to explore in great depth an area of philosophical concern using all the tools students have developed as philosophy majors. There will be several papers and oral presentations. Open only to senior philosophy majors or by departmental permission. Three hours per week. *Four semester hours. Four semester hours. (H.)*

PHIL/POL-437W. Seminar in Political Philosophy *Faculty*

This capstone course is an intensive study of a special topic in political philosophy emphasizing original research and substantial oral and written work. Prerequisites: junior or senior status and one 300-level course in political philosophy. Three hours per week. *Four semester hours. (SS.)*

PHIL-491W. Research/Independent Work *Faculty*

This course is open to candidates for departmental honors and to other students with the permission of the departmental chair. *Four semester hours. (I.)*

PHIL-492W. Research/Independent Work *Faculty*

A continuation of PHIL-491. Prerequisite: PHIL-491. *Four semester hours. (I.)*

Religious Studies

Requirements for Religious Studies Minor

A minor in religious studies requires Religious Studies 211 (World Religions); and four other four-credit courses in Religious Studies.

Note: With the permission of the Department Chair, a student may take History 342 to fulfill requirements for a minor in religious studies.

RELS-211. World Religions. *Dr. Rein*

An introduction to five major living religions, namely Hinduism, Judaism, Buddhism, Christianity and Islam. An examination of the leading problems of religious traditions, their history and cultural context, and the approaches of world religions to ultimate questions concerning the meaning of human life. (Formerly PHIL-211.) Three hours per week. *Four semester hours. (H, G.)*

Note: Students who have received credit for the former PHIL-211 may not enroll in RELS-211.

RELS/PHIL-220. Philosophy of Religion. *Dr. Goetz, Dr. Rein*

A philosophical study of both belief itself as a psychological attitude and what has been believed about God. Particular attention is given to such questions as whether or not belief is a matter of choice and whether or not one must have a reason to believe in God. Questions about the natures of God and man, evil and immortality are also addressed. Three hours per week. *Four semester hours. (H.)*

RELS-221. Religion in American Culture. *Faculty*

A systematic examination of religion in the United States as a philosophy of life, attitude, tradition, and organization. The beliefs and thoughts of Protestants, Catholics, and Jews from the colonial period to modern times are studied. Three hours per week. *Four semester hours. (H.)*

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RELS-225. African American Religious Experience. *Prof. Rice*

This historical, theological, and contextual study of religion examines the African American religious experience, including: the African Background, slavery in America, the struggle for freedom and identity, the development of the Black Church, the Black Muslims, the Civil Rights movement, and the emergence of Black and Womanist theologies. (Formerly PHIL-225.) Three hours per week. *Four semester hours.* (H.)

Note: Students who have received credit for the former PHIL-225 may not enroll in RELS-225.

RELS-233. Christianity: A Historical Introduction. *Dr. Rein*

A survey of important thinkers, literature and movements typical of the Christian tradition from the early church period through the 20th century. Careful study of such writers as Clement, Athanasius, Augustine, Anselm, Aquinas, Ockham, Bernard, Luther, Edwards and others is included. (Formerly RELS-333.) Three hours per week. *Four semester hours.* (H.)

Note: Students who have received credit for the former RELS-333 may not enroll in RELS-233.

RELS-236. Islam. *Dr. von Schlegell*

An introduction to the religious tradition of Islam. Topics to be covered may include, among others, the origins and spread of Islam; the Qur'an; faith and practices of Muslims; theology and law; Islamic art and culture; Sufi mysticism; Islam and the West; and Islamic modernism. (Formerly RELS-336.) Three hours per week. *Four semester hours.* (H, G.)

Note: Students who have received credit for the former RELS-336 may not enroll in RELS-236.

RELS-237. Puritans and Progressives: An Islamic Reformation? *Dr. von Schlegell*

Terrorists who claim Islamic justification for their actions connect themselves to a puritan form of Islam, called Wahhabism or Salafism. For them, Islam has been corrupted because Muslims strayed from a literalist interpretation of scriptures of Islam. Progressive Muslims speak of universal ethical principles in the Qur'an, which lead them to a revival of the Islamic arts, democratization of society, pluralism and interfaith dialogue, gender equality, and social justice. The course also treats Islamic feminism and Muslims living in the West. Three hours per week. *Four semester hours.* (H, G.)

RELS-238. Women and Islam. *Dr. von Schlegell*

This course examines women and the religion of Islam: in speaking of God, in creation narratives, in family structures, in attitudes toward the body, in the history of religious movements. We read traditional patriarchal accounts of "women's role in Islam." Muslim women today are re-interpreting the texts for themselves. Feminism is at the heart of the growing "Islamic Reformation." Student oral presentations augment formal lectures. Short reflection papers and a research paper. Three hours per week. *Four semester hours.* (H, G.)

RELS-242. Hebrew History and Scriptures. *Faculty*

Foundations of the Judeo-Christian tradition in the literature and thought of the Hebrew scriptures (the Christian Old Testament). Attention is given to the archeological and historical background of the Hebrew scriptures, as well as to the biblical materials themselves. Three hours per week. *Four semester hours.* (H.)

RELS-244. Introduction to Judaism. *Faculty*

Attention is given to the history, traditions, and literature of the Jewish people from their origins in the second millennium B.C.E. to the present day. Stress is given to specific religious concepts and teachings which are pertinent to modern times. Three hours per week. *Four semester hours.* (H.)

RELS-245. The Christian Bible. *Faculty*

This course examines the Christian scriptures, focusing primarily on the Gospels, the Pauline epistles, and the other books of the New Testament, but also treating the works of the Hebrew Bible as viewed in the context of the Christian tradition. Attention will also be given to the historical tradition of biblical interpretation. Three hours per week. *Four semester hours.* (H.)

RELS-301. Reading in Religious Studies. *Faculty*

Individual study of one or more selected topics in the literature of religious studies. May include preparation of a bibliography for a proposal for subsequent research. Requires consent of a member of the department who will serve as adviser. This course is graded S/U. *One semester hour.*

RELS-302. Reading in Religious Studies. *Faculty*

Individual study of one or more selected topics in the literature of religious studies. May include preparation of a bibliography for a proposal for subsequent research. Requires consent of a member of the department who will serve as adviser. This course is graded S/U. *Two semester hours. (G, depending on topic.)*

RELS-309. Selected Topics in Religious Studies. *Faculty*

The course will concentrate on special issues, movements, and leading figures in the study of religion. Three hours per week. *Four semester hours. (H, G, depending on topic.)*

RELS-324. Literature and Religious Idea. *Faculty*

An analysis of the significant themes common to works of imaginative literature exploring the interrelation of religion and artistic creativity. Attention will be given to Camus, Eliot, Faulkner, Kazantzakis, Waugh, and others. Three hours per week. *Four semester hours. (H.)*

RELS-327. Religion and Violence. *Dr. Rein*

The turn of the twenty-first century has been accompanied by an alarming global increase in religiously-motivated violence. Historically, religious ideas have been used to justify both war and peace, both violence and reconciliation. This course will examine the relationship between religion and violence in various historical contexts. Topics will include: just war doctrine, crusades and holy wars; sacrificial rituals in traditional cultures; modern revolutionary and terrorist movements; and religious pacifism. (Formerly PHIL-327.) Three hours per week. *Four semester hours. (H.)*

Note: Students who have received credit for the former PHIL-327 may not enroll in RELS-327.

RELS-328: Religious Diversity in Southeastern Pennsylvania. *Dr. Rein*

Religious diversity and difference have become crucial political and social issues in the early years of the twenty-first century. In this course, students will participate in an ongoing effort to understand, investigate, and connect with the religious diversity of our region. Readings will focus on theoretical and practical interpretations of religious diversity, primarily in a modern American context. The course will also involve frequent field trips and site visits to religious institutions and organizations near Ursinus, including but not limited to Buddhist, Hindu, and Islamic sites. Three hours per week. *Four semester hours. (H, D.)*

RELS-365. The Protestant Reformation. *Dr. Rein*

An examination of the sixteenth-century Protestant Reformation through the writings of Luther, Calvin, representatives of the Radical and Catholic reforms, and others, with attention to their social, cultural, and political context. Topics include the crisis of medieval culture, Luther's biography and teachings, the theology of faith and grace, the creation of a Protestant culture, the radical reformers, and international Calvinism. (Formerly PHIL-325.) Three hours per week. *Four semester hours. (H.)*

Note: Students who have received credit for the former PHIL-325 may not enroll in RELS-365.

RELS-366. The Muhammad Seminar. *Dr. von Schlegell*

Who was Muhammad? For Muslims he is the genealogical and spiritual heir to Abraham, the founder of monotheism. This course examines secular and sacred histories of Muhammad's life from both Sunni and Shi'i sources. We consider how he has been portrayed in the West from the Middle Ages to the 21st c. We look at Muhammad in Islamic music, art, and poetry, and in new genres like Muslim hip-hop. Primarily discussion format, with short critical reviews and one term paper. Three hours per week. *Four semester hours. (H, G.)*

RELS-367. Islamic Mysticism. *Dr. von Schlegell*

Sufism (Islamic Mysticism) manifests itself in multiple forms. But all Sufis share having an intense love of God and doing mystical practices. Scholars have assumed that mystics and religious legal authorities are in constant battle. We will reconsider this idea. Today in some countries Sufism is considered a serious threat. Why? Readings center on Sufi understandings of the nature of the divine, miracles, dreams, and the spiritual meanings of sex and death. Three hours per week. *Four semester hours. (H, G.)*

Physics and Astronomy

Associate Professors Nagy (Chair), Cellucci and Riley; Assistant Professor Carroll.

The courses in physics are designed to give the student an understanding of the logic and structure of physics. Methods of analysis and presentation of concepts and ideas are emphasized. Laboratory work demonstrates the dependence of physical theory on experimentation.

Requirements for Majors

Physics Track

Students must take the following courses: Chemistry 105, 105L, 206, 206L; Mathematics 112; Physics 111Q, 112, 207, 209, 210, 210a, 212, 309, 315, 408W, and at least eight credits of additional work at the 300 level or above.

Astrophysics Track

Students must take the following courses: Chemistry 105, 105L, 206, 206L; Mathematics 112, Physics 111Q, 112, 207, 209, 210, 210a, 212, 301, 309, 315, 458W; at least two credits of research (from 411, 412, 421, 422, 491).

Students anticipating graduate study in physics or astrophysics should select additional courses from Physics 304, 316, 401, 405, 410, and from Mathematics 235, 310, 413.

Requirements for Secondary School Teaching Certification

Students must take Biology 101Q; Chemistry 105, 105L, 206, 206L; Mathematics 111 or 108, 112; Physics 111Q, 112, 101Q or 102Q, 207, 209, 210, 210a, 212, 315, 408W.

Requirements for Minors

Minor concentration in physics: Consists of Mathematics 111 or 108, 112; Physics 111Q, 112, 207, and a minimum of seven credits selected from 209, 210, 210a, 212, 304, 308W, 309, 315, 316, 401, 408W, 410, including at least one of the following: 209, 210a, 408W.

Minor concentration in astronomy: Consists of Physics 101Q, 102Q, 111Q, 112, 201, 301, and a minimum of three credits of seminar from the following topics: solar system astronomy, celestial mechanics, galactic astronomy, astrometry.

Students in the pre-engineering program usually take Chemistry 105, 105L, 206, 206L; C5173 Mathematics 111, 112, 211, 310; Physics 111Q, 112, 207, 209, 212. Additional courses in chemistry, mathematics, and physics are chosen in consultation with the pre-engineering adviser. The courses are determined by the particular field of engineering the student plans to enter.

PHYS-101Q. Stars and Galaxies *Dr. Nagy*

Periodic changes in the sky, physical principles of stellar astronomy, star formation and evolution, galaxies, the creation and evolution of the universe, telescopic observations and CCD astrophotography. Prerequisite: a working knowledge of high school algebra. Three hours of lecture and two hours of laboratory per week. *Four semester hours. (LS.)*

PHYS-102Q. The Solar System *Dr. Nagy*

Periodic changes in the sky, physical principles of solar system astronomy, the sun and planets, asteroids and other solar system debris, the search for extraterrestrial intelligence, telescopic observations and CCD astrophotography. Prerequisite: a working knowledge of high school algebra. Three hours of lecture and two hours of laboratory per week. *Four semester hours. (LS.)*

PHYS-111Q. General Physics I. Faculty

A study of mechanics and thermodynamics, utilizing the principles of calculus in the presentation and in exercises. Prerequisite or corequisite: MATH-111, or permission of instructor. Three hours of lecture and three hours of lab per week. *Four semester hours. (LS.)*

PHYS-112. General Physics II. Faculty

A continuation of PHYS 111Q. A study of waves, electricity, magnetism, and light, utilizing the principles of calculus in the presentation and in exercises. Prerequisites: PHYS-111Q, MATH-111 or permission of the instructor. Three hours of lecture and three hours of lab per week. *Four semester hours. (LS.)*

PHYS-207. Modern Physics. Faculty

Special relativity, origins of quantum theory, physics of atoms, molecules, solids, nuclei, and elementary particles. Class work will include experiments which demonstrate the physical principles. Prerequisites: PHYS-112. Three hours per week. *Four semester hours.*

PHYS-209. Electronics for Scientists Dr. Cellucci

Foundations of analog and digital circuits. D-C and A-C circuits, transistors, operational amplifiers, digital electronics. Prerequisite: PHYS-112. Three hours lecture and three hours laboratory per week. Offered spring semester. *Four semester hours. (LS.)*

PHYS-210. Intermediate Classical Physics Faculty

Vectors, vector calculus, classical mechanics (statics, kinematics, dynamics of a particle, energy, harmonic motion, moving reference systems, central forces, chaos), electricity and magnetism (electric forces, capacitance, currents, magnetic forces, induction). Prerequisites: PHYS-112, MATH-112. Three hours per week. Offered fall semester. *Three semester hours. (LS with PHYS-210a.)*

PHYS-210a. Intermediate Laboratory Faculty

Laboratory work (optional) for PHYS-210. Three hours per week. Offered fall semester. *One semester hour. (LS, with PHYS-210.)*

PHYS-212. Classical and Quantum Mechanical Waves. Faculty

The behavior of classical waves, wave-particle duality, state functions and probability densities, the Schrodinger wave equation, one-dimensional quantum mechanical problems, prediction and measurement in quantum mechanics. Class work will include experiments which demonstrate the physical principles. Prerequisites: PHYS-112, MATH-112. Three hours per week. *Four semester hours.*

PHYS-301. Introduction to Astrophysics Dr. Nagy

Astrometry, astronomical photometry, CCD imaging and image processing, spectroscopy. The astronomical two-body problem, tidal forces, the Sun and planets, observable properties of stars, stellar structure and evolution, binary stars, galaxies and cosmology. Prerequisites: PHYS-112, MATH-111, pre- or co-requisites: MATH-112. Three hours lecture and three hours lab per week. *Four semester hours. (LS.)*

PHYS-304. Thermodynamics. Dr. Nagy

Primarily classical thermodynamics with a brief introduction to statistical aspects. Temperature, laws of thermodynamics, work, heat, energy, entropy, thermodynamic potentials, kinetic theory of dilute gases, equations of state. Alternates with PHYS-410. Prerequisites: PHYS-112, PHYS-315. Three hours per week. *Four semester hours.*

PHYS-309. Electric and Magnetic Fields. Dr. Nagy

Electric and magnetic fields and potentials, Laplace's equation, dielectrics and magnetic materials, Maxwell's equations, electromagnetic waves. Prerequisites: PHYS-112, 210, 315. Three hours per week. *Four semester hours.*

PHYS-315. Mathematical Physics I. Dr. Nagy

Ordinary differential equations, special functions of mathematical physics, linear algebra, coordinate transformations, vector analysis, Fourier series, numerical solution of algebraic equations. Prerequisites: PHYS-112, MATH-112. Three hours per week. *Four semester hours.*

PHYS-316. Mathematical Physics II. Dr. Nagy

Complex analysis, partial differential equations, numerical integration and differentiation, numerical solution

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of ordinary differential equations, Fourier and Laplace transforms. Prerequisite: PHYS-315. Three hours per week. *Four semester hours.*

PHYS-317. Seminar *Faculty*

Study and discussion of advanced topics or recent developments in physics. Students must consult the chair of the department before registering for this course. Three hours per week. *Three semester hours.*

PHYS-318. Seminar *Faculty*

Same description as PHYS-317. Three hours per week. *Three semester hours.*

PHYS-401. Applications of Quantum Mechanics. *Faculty*

The hydrogen atom, angular momentum, systems of identical particles, perturbation theory, and other applications selected from atomic, molecular, solid-state, and nuclear physics. Alternates with PHYS-309. Prerequisite: PHYS-212. Three hours per week. *Four semester hours.*

PHYS-405. Computational Physics. *Dr. Cellucci*

Sophisticated numerical and nonlinear techniques will be developed and applied to modern and traditional problems in physics. Problems whose solutions are not accessible analytically will be explored through the use of symbolic and compiled languages with visualization. Prerequisites: PHYS-315, CS-371, or permission of a member of the physics faculty. Three hours per week. *Four semester hours.*

PHYS-408W. Advanced Physics Laboratory. *Faculty*

Experimental investigations of physical phenomena with emphasis on laboratory techniques and the written and oral communication of scientific results. This course fulfills the capstone requirement for the Physics track of the major. Prerequisites: PHYS-207, 210, 212. Six hours of laboratory per week. *Four semester hours. (LS.)*

PHYS-410. Classical Mechanics. *Faculty*

Dynamics of a system of particles, mechanics of rigid bodies, general motion of a rigid body, Lagrange's equations, Hamilton's equations, theory of vibrations. Alternates with 304. Prerequisites: PHYS-210, 315. Three hours per week. *Four semester hours.*

PHYS-411. Research *Faculty*

Investigations, of experimental or theoretical nature, pursued independently by the student. The preparation of a summarizing report is required. To register for this course, a student must have the consent of a member of the physics Faculty to serve as the adviser. *One semester hour.*

PHYS-412. Research *Faculty*

Continuation of PHYS-411. *One semester hour.*

PHYS-421. Research *Faculty*

Same as PHYS-411, but more extensive in scope. *Two semester hours.*

PHYS-422. Research *Faculty*

Continuation of PHYS-421. *Two semester hours.*

PHYS-431. Research *Faculty*

Same as PHYS-421, but more extensive in scope. *Three semester hours. (I.)*

PHYS-432. Research *Faculty*

Continuation of PHYS-431. *Three semester hours. (I.)*

PHYS-441. Internship. *Faculty*

A laboratory project in cooperation with industry at an industrial site, a national lab, or other appropriate academic site, involving a minimum of 10 hours per week for one semester or four weeks of full-time work. Before beginning the internship, the student must submit a proposal to be approved by the Physics faculty and the on-site supervisor. Upon completion of the work, written and/or oral reports must be presented to the department. Graded S/U. *Three semester hours. (I.)*

PHYS-458W. Seminar in Astrophysics. *Dr. Nagy*

Study and discussion of advanced topics or recent developments in astrophysics, with emphasis on the written

and oral communication of scientific results. This course fulfills the capstone requirement for the Astrophysics track of the major. Prerequisite: PHYS-301. Three hours per week. *Four semester hours.*

PHYS-491. Research/Independent Work *Faculty*

This course is open to candidates for departmental honors and to other students with the permission of the departmental chairman. *Four semester hours. (I.)*

PHYS-492W. Research/Independent Work *Faculty*

A continuation of PHYS-491. Writing a major paper and giving an oral presentation are required. Prerequisite: PHYS-491. *Four semester hours. (I.)*

Politics and International Relations

Professors Fitzpatrick, Hood, Melrose (*Ambassador in Residence*), Stern (*Chair*); *Associate Professors* Evans, Kane, Marks.

The general objectives of the department of politics and international relations are:

- 1) To challenge students to evaluate their conceptions of the good life for the individual and for society.
- 2) To prepare students for lives of enlightened and responsible citizenship.
- 3) To help students attain knowledge of the theory and practice of politics.
- 4) To help students develop the faculties of expression and critical thinking.

The professional objectives are:

- 1) To prepare students for graduate work in politics, law, and public service.
- 2) To prepare students for examinations required for governmental service.
- 3) To prepare students to be political leaders.

Requirements for Politics Majors

A major in politics requires Politics 218, 237, 242, 252, one seminar at the 400 level, plus five additional courses at the 300 level or above. Students must take at least one 200-level W course in their freshman or sophomore year.

Secondary School Teaching Certificate

In addition to the basic requirements of the major, students seeking a teaching certificate in social studies must be enrolled in the College's teacher education program. Substantial further coursework outside of either major is required in order to prepare the student for actual subject matters taught in the secondary curriculum. Students who wish teaching certification should consult their departmental adviser and the chair of the department of education as early as possible, preferably at the end of the freshman year. Students and their advisers should also consult the Ursinus College Education Department.

Requirements for Politics Minors

A minor in politics consists of two courses from among Politics 218, 237, 242, 252; and three courses at the 300 or 400 level.

POL-218. American Government *Dr. Fitzpatrick, Dr. Marks*

A critical examination of the institutions, processes, policies, and underlying principles of the American political system. Topics include the Constitution, interest groups, parties and elections, the presidency, Congress, the bureaucracy, and the judiciary. Three hours per week. *Four semester hours. (SS.)*

NOTE: Every year, one section of this class will be offered as POL 218W. Students in this section will be required to do extensive writing and revision of papers. Enrollment is limited to freshman or sophomore Politics majors, or by permission of instructor. Majors are encouraged to enroll in POL 218W if they intend to take the senior seminar in

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American Government, POL 418W. Students may not receive credit for both POL 218 and POL 218W.

POL/PHIL-237. Political Philosophy *Dr. Marks, Dr. Stern*

This course examines the nature of justice through a careful reading of major works in the history of political philosophy. Specifically, we will consider selected political writings of Plato, Aristotle, Machiavelli, Hobbes, Locke, and Marx. Three hours per week. *Four semester hours. (SS.)*

NOTE: Every year, one section of this class will be offered as POL 237W. Students in this section will be required to do extensive writing and revision of papers. Enrollment is limited to freshman or sophomore Politics majors, or by permission of instructor. Majors are encouraged to enroll in POL 237W if they intend to take the senior seminar in Political Philosophy, POL 437W. Students may not receive credit for both POL 237 and POL 237W.

POL-242. Comparative Politics *Dr. Evans, Dr. Hood, Dr. Kane*

The structure and function of governments and political groups will be compared to develop basic theory. Representative Western, Third World, and Communist systems will be studied. Three hours per week. *Four semester hours. (SS, G.)*

NOTE: Every year, one section of this class will be offered as POL 242W. Students in this section will be required to do extensive writing and revision of papers. Enrollment is limited to freshman or sophomore Politics majors, or by permission of instructor. Majors are encouraged to enroll in POL 242W if they intend to take the senior seminar in Comparative Politics, POL 442W. Students may not receive credit for both POL 242 and POL 242W.

POL-252. International Politics *Dr. Evans, Dr. Hood*

General theory, simulations, games, and case studies explain the relations between states and the roles of politics, individuals, and international law and organizations in the making and resolving of conflict. Three hours per week. *Four semester hours. (SS, G.)*

NOTE: Every year, one section of this class will be offered as POL 252W. Students in this section will be required to do extensive writing and revision of papers. Enrollment is limited to freshman or sophomore Politics majors, or by permission of instructor. Majors are encouraged to enroll in POL 252W if they intend to take the senior seminar in International Politics, POL 453W. Students may not receive credit for both POL 252 and POL 252W.

POL-299. Tutorial in Politics and International Relations *Faculty*

Individual study and directed reading of a particular topic or book within the discipline. Students will work closely with a member of the department in selecting, reading, and discussing the topic, and in determining a proper written assignment. Prerequisites: prior permission of the instructor. One hour per week. *One semester hour.*

POL-300Q. Introduction to Political Science Research Methods *Faculty*

Students will gain an understanding of how political scientists utilize various methodologies, such as surveys, case studies and experiments, to answer research questions. Students will also learn the basic statistical techniques utilized to analyze political data. In addition to gaining an understanding of the theoretical basis for the use of elementary statistical procedures, students will develop the ability to use a statistical software package, such as SPSS, to conduct statistical analysis on their own. Some classroom sessions will be conducted in the computer lab. Three hours per week. *Four semester hours. (SS.)*

POL-305. Politics and the Arts *Faculty*

This course analyzes the political messages in selected works of art and relates these to works in political science. Works of art may include, among other things, novels, plays and films. Prerequisite: 200-level Politics class or permission of instructor. Four hours per week. *Four semester hours. (SS, D.)*

POL-310. Congress and the Presidency *Dr. Fitzpatrick*

The decision-making process in Congress and the executive branch with emphasis on the interaction of the branches in their struggle to make and apply policy. Prerequisite: POL-218. Three hours per week. *Four semester hours.*

POL-315. Race and Politics in the United States *Faculty*

An examination of the politics of the relationships among Americans of African, Asian, Hispanic, and European descent. The major theories concerning the influence of race on policy attitudes will be investigated. Efforts will also be undertaken to identify and evaluate the strategies used by various racial groups in their attempts to gain political power in the United States. Prerequisite: POL-218 or permission of the instructor. Three hours per week. *Four semester hours. (SS, D.)*

POL-316. African American Politics in the United States *Faculty*

A survey of the philosophical perspectives and political strategies adopted by African Americans in their efforts to obtain equality in the United States. In addition to analyzing the approaches and techniques undertaken by African American political leadership, the course will investigate and evaluate mass based political efforts such as protests and voting. Prerequisite: POL-218 or permission of the instructor. Three hours per week. *Four semester hours.* (SS, D.)

POL-321. Constitutional Interpretation I *Dr. Fitzpatrick*

The role of the Supreme Court in the interpretation and enforcement of the Constitution is examined through analysis of leading cases. Judicial review, powers of Congress and the President, and the division of powers between the national and state governments are among the topics considered. Prerequisite: POL-218. Three hours per week. *Four semester hours.* (SS.)

POL-322. Constitutional Interpretation II *Dr. Fitzpatrick*

The role of the Supreme Court in the interpretation and enforcement of individual rights within a system of limited government. Substantive and procedural due process, freedom of expression and conscience, and equal protection of the law are among the topics considered. Prerequisite: POL-218. Three hours per week. *Four semester hours.* (SS.)

POL-323. American Local Government *Faculty*

The structure, policies, and problems of local government institutions in the American Federal system. Intergovernmental relations, citizen participation, policy development, leadership, and service performance are all considered. Prerequisite: POL-218. Three hours per week. *Four semester hours.* (SS.)

POL-324. Political Parties and Elections *Dr. Fitzpatrick*

An examination of the evolution of the American two-party system and the increasingly volatile nature of the American electorate. Topics include the dynamics of party realignment, the changing characteristics of the American voter, the politics of presidential selection, and the consequences of party and electoral reform. Prerequisite: POL-218. Three hours per week. *Four semester hours.* (SS.)

POL-325. The Judicial Process *Dr. Fitzpatrick*

Proceeding from the idea that the judicial process is essentially a political process, this course will examine the ways in which participants in the judicial process—particularly judges—reach decisions, engage in politics, and affect public policy. Prerequisite: POL-218. Three hours per week. *Four semester hours.* (SS.)

POL/ENV-326. Environmental Law *Dr. Kane*

The study of various state, national, and international legal patterns that have arisen to address environmental concerns. The environmental field will be used to examine the nature and effectiveness of civil, criminal, and administrative action to address a complicated and important social issue. Topics will include federal administrative law; international trade and environmental regulation; control of toxic substances and hazardous wastes; the impact of scientific uncertainty on regulation; federal regulatory programs; civil liability under federal regulations; citizen suits; and the preservation of natural areas. Prerequisites: POL-218 for Politics and International Relations majors or permission of the instructor. Three hours per week. *Four semester hours.* (SS.)

POL-328. Law and Society *Dr. Kane*

A study of the origins, objectives, and manifestations of law in the United States political system. The case method of analysis is used to identify the salient features of the major classes of law and to evaluate the judicial procedures and institutions by which law is applied in the United States. Prerequisite: POL-218. Three hours per week. *Four semester hours.* (SS.)

POL-329. Public Administration *Dr. Kane*

A survey of the field of public administration, emphasizing administrative organization, fiscal management and personnel management. The administrative process is considered as a unit encompassing Federal, state and local administration. Prerequisite: POL-218. Three hours per week. *Four semester hours.* (SS.)

POL-330. American Political Thought *Dr. Marks*

This course examines the founding principles of our regime and the problems inherent in those principles as revealed by the great crises of our history. Accordingly, we will examine carefully the speeches and writings

of those statesmen who founded the regime as well as those who guided it through its crises. Readings will include the works of Jefferson, Madison, Hamilton, the Anti-Federalists, Lincoln, Frederick Douglass, Wilson, and F.D.R. Prerequisite: POL-237. Three hours per week. *Four semester hours.* (SS, D.)

POL/PHIL-337. Classical Political Philosophy *Dr. Stern, Dr. Marks*

This course examines the classical understanding of politics through a careful reading of selected works of Plato and Aristotle. We will consider such issues as the nature of justice, the meaning of moral and intellectual virtue, and the relation between philosophy and politics. Prerequisite: POL/PHIL-237. Three hours per week. *Four semester hours.* (SS.)

POL/PHIL-338. Modern Political Philosophy *Dr. Stern, Dr. Marks*

This course examines and evaluates the world-revolutionary challenge to classical and medieval political philosophy posed by such writers as Machiavelli, Hobbes, Spinoza, Locke, Rousseau and Hegel. Prerequisite: POL/PHIL-237. Three hours per week. *Four semester hours.* (SS.)

POL/PHIL-339. Contemporary Political Philosophy *Dr. Stern, Dr. Marks*

This course examines selected authors and issues in contemporary political philosophy. We will read the works of such authors as Nietzsche, Heidegger, Kojève, Rawls and Foucault. We will consider such issues as historicism, contemporary liberalism, feminism, and Marxism. Prerequisite: POL/PHIL-237. Three hours per week. *Four semester hours.*

POL-343. Leadership in the Civil Society of Cuba *Dr. Kane*

This course will be taught in Cuba during four weeks of the summer. The class will meet for ten hours during the following semester to discuss and review research papers. Focus of study will be leadership of the non-governmental groups which are assuming quasi-governmental roles. Prerequisites: POL-399 Leadership Studies. *Two semester hours.* (SS.)

Note: Students must take both Politics 343 and 348 to receive credit for one elective course in the major.

POL-344. Political Development *Dr. Evans, Dr. Hood*

An analysis of political change in developed and less-developed countries, focusing on the various theories used to explain socioeconomic and political conditions, and development strategies among several political systems in the international community. Prerequisite: POL-242. Three hours per week. *Four semester hours.* (SS, G.)

POL-345. Democracy and Politics in Latin America *Dr. Kane*

Study of the patterns of government and politics in the Caribbean, and Latin America and of the views of democracy held by Latin American political leaders and theorists. Mexico will be used as a point of departure with each student researching one additional assigned country. Prerequisite: POL-242 or consent of the instructor. Three hours per week. *Four semester hours.* (SS, G.)

POL-346. East Asian Democracy *Dr. Hood*

Study of the contemporary democratic regimes of East Asia, including Japan, Korea, and Taiwan. In addition, an examination of democratic theory and East Asian Culture. Prerequisite: POL-242 or permission of the instructor. Three hours per week. *Four semester hours.* (SS, G.)

POL-347. Chinese Politics *Dr. Hood*

An examination of the contemporary government and politics of China with special attention paid to contemporary Chinese political thought, culture and policy. Prerequisite: POL-242 or permission of the instructor. Three hours per week. *Four semester hours.* (SS, G.)

POL-348. Politics and Government of Cuba *Dr. Kane*

A study of the politics and government of Cuba, with an emphasis upon the characteristics and themes that will contribute to the direction of politics in the first decades of the 21st century. Prerequisites: POL-242 or consent of the instructor. *Two semester hours.*

POL-349. European Politics *Faculty*

An examination of modern European economic and political systems and the different ways in which various European countries have sought to preserve social stability, promote economic prosperity and guarantee democracy in the post-WWII period. The course also focuses on European integration and democratization in

Southern and Eastern Europe. Prerequisite: POL-242 or permission of the instructor. Three hours per week. *Four semester hours. (SS.)*

POL-350A. International Organizations and Diplomacy *Dr. Melrose*

A study of governmental international organizations and diplomacy with particular emphases on functions of the United Nations and other intergovernmental and non-governmental organizations and multilateral political affairs. Prerequisite: Politics 252 or permission of the instructor. Students must take both Politics 350 A and B to receive credit for one elective course in the major. Two hours per week. *Two semester hours.*

POL-350B. International Organizations and Diplomacy *Dr. Melrose*

A continuation of POL-35A. This course also prepares students to participate in the National Model United Nations conference. Prerequisite: Politics 350A or permission of the instructor. Students must take both Politics 350 A and B to receive credit for one elective course in the major. Two hours per week. *Two semester hours.*

POL-352. Theories of International Relations *Dr. Evans, Dr. Hood*

This course explores the theories that have been used to study international relations from ancient times to the present. Particular attention is given to the roots of contemporary theories, especially realism, neoliberalism, imperialism, neorealism, and international political economy. Prerequisite: POL-252. Three hours per week. *Four semester hours. (SS.)*

POL-353. International Relations of Asia *Dr. Hood*

An examination of the foreign and international policies of the major countries of East Asia. Special emphasis is given to the politics of international trade and economics, war and security issues, and the role of the superpowers in the East Asian region. Prerequisite: POL-252. Three hours per week. *Four semester hours. (SS, G.)*

POL-355. U.S. Foreign Policy *Dr. Melrose, Dr. Evans*

Analysis of the process and substance of U.S. foreign policy. Attention is paid to the roles and limitations of the Presidency, Congress, the State Department, the National Security Council, public opinion and non-governmental actors. Emphasis will be placed on current controversial global issues. Prerequisite: POL-252. Three hours per week. *Four semester hours. (SS.)*

POL-357. War and Peace *Dr. Evans*

Various theories of international conflict will be tested by way of a series of case studies on 20th-century wars and revolutions. The Inter-Nation Simulation will be played using historical or hypothetical conflict to further test theories. Prerequisite: POL-252. Three hours per week. *Four semester hours. (SS.)*

POL-358. The Vietnam War *Dr. Hood*

An examination of the Vietnam War analyzing objectives and strategies of the competing Vietnamese regimes, the United States, China, the Soviet Union, Cambodia, and Laos. Prerequisite: POL-242, POL-252 or permission of the instructor. Three hours per week. *Four semester hours. (SS.)*

POL-381. Internship in Politics and Government *Faculty*

Internship in a public or governmental organization or participation in an overseas study program. A 2.67 grade average and permission of the department are required. *Four semester hours. (I.)*

POL-399. Topics in Law and Politics *Faculty*

An occasional course dealing with special subject areas or events. *Four semester hours. (SS, G, or D, depending on topic.)*

POL-418W. Seminar in American Government *Dr. Fitzpatrick*

Intensive study of a special topic in American government emphasizing original research and substantial oral and written work. Prerequisites: junior or senior status and one 300-level course in American government. Three hours per week. *Four semester hours. (SS.)*

POL-437W. Seminar in Political Philosophy *Dr. Stern, Dr. Marks*

Intensive study of a special topic in political philosophy emphasizing original research and substantial oral and written work. Prerequisites: junior or senior status and one 300-level course in political philosophy. Three hours per week. *Four semester hours. (SS.)*

POL-442W. Seminar in Comparative Politics *Dr. Evans, Dr. Hood*

Intensive study of a special topic in comparative politics emphasizing original research and substantial oral and written work. Prerequisites: junior or senior status and one 300-level course in comparative politics. Three hours per week. *Four semester hours. (SS.)*

POL-452W. Seminar in International Politics *Dr. Evans, Dr. Hood*

Intensive study of a special topic in international politics emphasizing original research and substantial oral and written work. Prerequisites: junior or senior status and one 300-level course in international politics. Three hours per week. *Four semester hours. (SS.)*

POL-491. Research/Independent Work *Faculty*

This course is open to candidates for departmental honors and to other students with the permission of the departmental chair. *Four semester hours. (I.)*

POL-492. Research/Independent Work *Faculty*

A continuation of POL-491. Prerequisite: POL-491. *Four semester hours. (I.)*

International Relations

Professors Clark, Doughty, Gallagher, Hood, Melrose (Program Coordinator), Oboler, Associate Professors Evans, Kane, King, Lecturer Brown.

International relations majors become capable of living and working in a worldwide setting by developing an understanding of how that setting came to be and how its various political, economic, and social systems function.

Requirements for International Relations Major

The international relations major is an interdisciplinary program for students interested in careers in international politics and diplomacy, intelligence work, higher education, international law, international trade, journalism, and other fields where expertise in international affairs is necessary. Courses required to complete the international relations major include: Anthropology 100, Business and Economics 100, History 207, Politics 242, 252, 352, and a capstone consisting of either Politics 442W, 452W, International Relations 400W or another capstone approved by the International Relations coordinator. Eligible students may write a departmental or interdisciplinary honors paper for their capstone requirement, with the approval of the IR coordinator. (Note: Students planning to do graduate study in political science should take Politics 218 and 237 as well.) Majors are additionally required to take four of the following courses, including courses in at least two different departments: Politics 305, 344, 345, 346, 347, 349, 350A and 350B, 353, 355, 357, 358; History 205, 241, 243, 253, 308, 344, 353, 365, 368; Business and Economics 211, 212, 260, 361, 362, 363; Anthropology 232, 242, 252; or Interdivisional Studies 332. (Note: Both POL 350A and 350B must be taken in order to qualify as one elective.) Finally, all students in the International Relations major must take at least two courses at the 200 level or above in a foreign language. International Relations majors are strongly encouraged to pursue study-abroad options. The department regularly tries to accommodate students by accepting courses taken abroad in fulfillment of major requirements.

Requirements for International Relations Minor

The international relations minor consists of Politics 242, 252 and three courses from the following list: Anthropology 232, 242, 252; Business and Economics 260, 361, 362, 363; History 205, 207, 241, 243, 253, 308, 344, 353, 365, 368; Interdivisional Studies 332; International

Relations 400W; Politics 305, 344, 345, 346, 347, 349, 350 A and B, 352, 353, 355, 357, 358. Minors are required to take courses from at least two contributing departments.

IR-400W. Research in International Relations *Faculty*

This capstone course will require a series of short papers and a major research project. An oral presentation will be made before an upper-division course on the subject. Three hours per week.

Four semester hours. (I.)

Psychology

Professors Chambliss (*Chair*), Rideout; *Associate Professor* Richardson; *Assistant Professors* Bish, DaCosta, Principe.

The objectives of the department of psychology for the student are:

1. to familiarize the student with the general methods of behavioral research;
2. to familiarize the student with the various content areas of psychology;
3. to develop an appreciation of the interplay of theory and research in psychology; and
4. to develop the ability for critical, analytic and independent thinking in the realm of behavioral science.

A student meeting these objectives is prepared not only for graduate work in psychology and the behavioral sciences, but also for study in other areas and professions, as well as employment in a wide variety of industrial, business, and governmental positions. Also attainable for psychology majors at Ursinus is Pennsylvania certification in social studies for grades 7-12, as well as courses which may apply to graduate school programs elsewhere for elementary and secondary school counselors and for school psychologists. Students and their advisers should consult the Ursinus College Education Department. In order to meet these objectives, the psychology curriculum is divided into four components: major core, ancillary courses, major concentration, minors. These are explained individually below.

Major Core

This is required of all psychology majors. It consists of a basic set of courses required of all majors, and four content areas from each of which the student must select one course.

1. Required: Psychology 100, 110, 210W.
2. Content areas: each student must select one course from each content area.
 - a. Experimental: Psychology 320, 325, 330, 335, 340.
 - b. Developmental/Personality: Psychology 345, 355, 375, 450, 455.
 - c. Social/Applied: Psychology 240, 360, 365, 440, 465.
 - d. Research/Theory: Psychology 481, 482, 491, 492, 495.
3. Six additional elected credits in Psychology.

Ancillary Courses

Required of all majors:

1. Two of the following: BIO-101Q, BIO-102Q, NEUR-120Q.
2. Eight credit hours in the non-psychology social sciences, choosing among anthropology, economics, politics, sociology and Media and Communication Studies 205.

Major Concentration

This is not required but rather intended for the student who plans to pursue graduate study in psychology or related fields.

1. Math 241Q, 242.
2. Psychology 481 or 482, 491 or 492 (beyond the course taken as part of the major core).
3. Three electives from departmental offerings at the 300-400 level.
4. MCS-102 is highly recommended.

Minor Concentration in Psychology

A minor concentration in general psychology consists of Psychology 100 and 110; one course in experimental psychology chosen from 320, 325, 330 or 340; one course in developmental/personality psychology chosen from 345, 355, 375, 450 or 455; one course in social/applied psychology chosen from 240, 360, 365, 440, or 465. A minor concentration in human behavioral development consists of Psychology 100, 110, 345, 355, and 455. A minor concentration in neuroscience consists of either NEUR-120Q or PSYC-100; MATH-241Q or PSYC-110; any three courses from the following list: PSYC-320; NEUR/PSYC-325; NEUR/PSYC-335; NEUR/BIO-431; or any one of NEUR-481W, NEUR-482W, NEUR-491, or NEUR-492W, NEUR/PSYC-327 is recommended but not required

PSYC-100. Introductory Psychology *Faculty*

This course is an introduction to psychological research and topics selected to illustrate interdisciplinary and cross-cultural perspectives. The goal is to enhance insight into individuals, the internal factors that influence their psychological processes, and their relationship with their social milieu. Four hours per week. *Four semester hours. (SS.)*

PSYC-110. Research and Statistical Methods *Dr. Richardson*

This course is an introduction to psychological research, emphasizing non-experimental research methodologies including field studies, correlational research, and quasi-experimental and ex post facto research designs. Topics covered include the following: operationism, measurement and error, subject and variable selections, experimental control, and ethical issues. Students will also be introduced to the use of statistics as a research tool. Three hours lecture, two hours laboratory per week. *Four semester hours. (SS.)*

PSYC-210W. Experimental Design and Statistical Methods *Dr. Rideout*

This course is designed to familiarize the student with principles of experimental design, statistical techniques, and laboratory methods used in psychology. Lectures, demonstrations, data collection, and the preparation of scientific reports. Prerequisites: CIE-100, PSYC-100, 110, or permission of instructor. Three hours lecture, two hours laboratory per week. *Four semester hours. (SS.)*

PSYC-240. Psychology and Law *Dr. Principe*

This course examines the American legal system in light of basic and applied psychological research and theory. Topics include jury decision-making, police interrogations and confessions, hypnosis, lie-detection, eyewitness testimony, line-ups, repressed memories, child witnesses in sex abuse cases, the death penalty, the insanity defense, and the role of psychology in legal reform. Prerequisite: PSYC-100 or permission of the instructor. Three hours per week. *Four semester hours. (SS.)*

PSYC-260. Mental Health and Abnormal Psychology *Dr. Chambliss*

Mental health problems are examined from the biological, behavioral, cognitive, humanistic/existential and sociocultural perspectives. Topics include reactive, anxiety, and personality disorders, psychosis and organic disorders, and substance abuse. Prevention and treatment of mental illness are discussed. Prerequisite: PSYC-100. Three hours per week. *Four semester hours. (SS, D.)*

PSYC/EDUC-265. Educational Psychology *Dr. DaCosta*

Educational application of psychological concepts will be addressed. The focus is on the psychological processes involved in learning and behavior management in the classroom, but the course includes a survey of cognitive and social development. Prerequisite: PSYC-100. Three hours per week. *Four semester hours. (SS.)*

PSYC/ENV-282. Environmental Psychology *Dr. Rideout*

Study of the interrelationship between human behavior and experience and the built and natural environment. Topics include: influences of weather, climate, noise, crowding, and stress; personal space and territoriality; work, leisure, and learning environments; the natural environment and behavioral solutions to environmental problems. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.* (SS.)

PSYC-301. Reading in Psychology *Faculty*

Individual study of one or more selected topics in the psychological literature, and preparation of an annotated bibliography of a detailed proposal for subsequent research. To register for this course, the student must have the consent of a member of the psychology staff to serve as adviser. *One semester hour.*

PSYC-302. Reading in Psychology *Faculty*

Content and prerequisites as in PSYC-301, but offered in the spring term. *One semester hour.*

PSYC-320. Sensation and Perception *Dr. Rideout*

The nature of the fundamental sensory processes will be explored with emphasis on vision and audition. Theory and experiments bearing on significant perceptual phenomena will be surveyed from both physiological and behavioral viewpoints. Prerequisites: PSYC-100, 110. Three hours of lecture, two hours of laboratory per week. *Four semester hours.* (SS.)

PSYC/NEUR-325. Behavioral Neurosciences *Dr. Bish*

A study of the structure and function of the vertebrate nervous system, particularly of the neural substrates of behavior as well as cerebral lateralization of function. Topics include evolutionary, anatomical and physiological approaches to the nervous system and behavior. Prerequisites: PSYC-100; BIO-101Q or permission of the instructor. Three hours per week. *Four semester hours.* (SS.)

PSYC/NEUR-327. Neurosciences Laboratory *Dr. Rideout*

A study of nervous system structure and function emphasizing human electrophysiological signal recording and manipulation. Topics include gross neuroanatomy; electrophysiological signal characteristics, recording and analysis; and biofeedback programming. Prerequisite: Permission of the instructor. Two hours per week. *One semester hour.*

PSYC-330. Cognitive Psychology *Dr. Bish*

A review of contemporary research and theory dealing with human mental processes. Topics covered include attention, pattern recognition, structure of memory, memory processes, and language acquisition. Prerequisite: PSYC-100. Three hours lecture, two hours laboratory per week. *Four semester hours.* (SS.)

PSYC/NEUR-335. Applied Cognitive Neuroscience *Dr. Bish*

A review of contemporary neuroscience research and theory with attention to its interdisciplinary (psychology, biology, medicine, and engineering) and applied nature. Topics include robotics, electronic implants, virtual environments, eye movements, spatial orientation, body posture and balance, multisensory representations of space, and higher order cognitive deficits. Prerequisites: NEUR/PSYC-325 or BIO-305 or permission of the instructor. Three hours per week. *Four semester hours.* (SS.)

PSYC/NEUR-337. Applied Cognitive Neuroscience Laboratory *Dr. Bish*

An experimental investigation of higher order cognitive function and the practical application of the experimental results. Topics include virtual and terrestrial navigation, eye movement recordings, three-dimensional analysis of body posture and balance, and object recognition and identification. Prerequisites: Permission of the instructor. Two hours per week. *One semester hour.*

PSYC-340. Learning and Motivation *Dr. Bish*

A review of learning theory, past and contemporary. Emphasis will be on the basic processes of classical conditioning and instrumental learning, the phenomena associated with these processes, and the development of learning theory in response to experimentation. Lectures, individual experimentation, and the preparation of scientific reports. Prerequisites: Psychology 100 and 210W. Three hours lecture, two hours laboratory per week. *Four semester hours.* (SS.)

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PSYC-345. Child Development *Dr. Principe*

A study of human development from conception through childhood. Physical, cognitive, and social development will be reviewed in terms of psychological theory and empirical research. Emphasis will be given to the interaction between cultural and individual influences on the course of development. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.* (SS, D.)

PSYC-355. Adolescent Psychology *Dr. DaCosta*

A review of research and theory of physical, psychological, and social development during adolescence. Topics covered will include physical/sexual development, cognitive development, personality development, sex roles and gender identity, peer and familial influences, and social development. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.* (SS, D.)

PSYC-360. Psychology in the Community *Dr. Principe*

Application of psychological theory, research methods, and empirical findings to community programs dealing with contemporary social problems, such as crime and delinquency, racial prejudice, environmental pollution, mental illness, drug addiction, poverty, and other forms of deprivation. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.* (SS, D.)

PSYC-365. Organizational Psychology *Dr. Richardson*

The study of human behavior in work settings. Motivation and productivity, personnel selection, human-computer interaction, and causes and consequences of job stress. The effects of different approaches to management are addressed. Prerequisites: PSYC-100; MATH-241Q. Three hours per week. *Four semester hours.* (SS, D.)

PSYC-375. Adulthood and Old Age *Faculty*

A survey of physical, social, and cognitive changes in adulthood with a focus on old age. The survey course will review research and theory from the lifespan perspective. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.* (SS, D.)

PSYC-381. Psychology Internship *Dr. Chambliss*

An off-campus academic/work experience under the supervision of an internship adviser and an on-site supervisor. Contact departmental chair for further information. Prerequisites: Junior standing, nine credits in psychology, and approval of a faculty internship adviser. Eight to ten hours per week. *Three semester hours.* (I.)

PSYC-440. Social Psychology *Dr. Richardson*

The study of social forces as they originate with and impinge on individuals. Attitude-behavior relationships, group membership, and causes of antisocial and prosocial behavior are analyzed. Historical perspectives are included. Three hours per week. Prerequisite: PSYC-100. Three hours per week. *Four semester hours.* (SS, D.)

PSYC-450. Psychopathology and Psychotherapy *Dr. Chambliss*

Clinical and experimental approaches to the understanding and treatment of psychosis, anxiety disorders, and related conditions. Selected topics are studied intensively to illustrate the wide variety of contemporary viewpoints and techniques. Prerequisites: PSYC-100, 260, and 265 or 345. Three hours per week. *Four semester hours.* (SS, D.)

PSYC-455. Personality *Dr. DaCosta*

A comprehensive survey of psychological theory and research dealing with the normal aspects of human nature. The psychoanalytic, biogenetic, trait, humanistic, and behavioral perspectives will be explored. Prerequisites: PSYC-100, 260, and 265, 355 or 345. Three hours per week. *Four semester hours.* (SS.)

PSYC-465. Testing and Assessment *Dr. Richardson*

Introduction to procedures and instruments related to the assessment of individuals and outcomes in educational and institutional settings. The course will review issues related to program evaluation as well as the development and use of aptitude, achievement, and personality tests. Prerequisites: Psychology 100 and Math 241Q. Three hours per week. *Four semester hours.* (SS.)

PSYC-480. History and Theories of Psychology *Dr. Bish*

The philosophical underpinnings of psychology from the Greeks to the 19th-century empiricists will be

explored. The development of scientific paradigms to address fundamental philosophical issues will then be traced in the emergence of contemporary psychology. A critique of psychology as a method of inquiry and as a theory of knowledge will be attempted within the framework of a philosophy and sociology of science. Three semester hours per week. *Four semester hours. (SS.)*

PSYC-481. Research *Faculty*

Investigations of an experimental, clinical or theoretical nature pursued independently by the student. The preparation of a written and oral scientific report is required. To register for the course, a student must have the consent of a member of the psychology staff to serve as his or her adviser. Prerequisite: MCS-102 or permission of instructor. *Four semester hours. (I.)*

PSYC-482. Research *Faculty*

Content as in PSYC-481, but offered in the spring term. Students who have been admitted to the course and who have fulfilled its requirements may be awarded departmental honors, but no additional semester hours of credit, if they have qualified in other ways for admission to the honors program. Prerequisite: MCS-102 or permission of instructor. *Four semester hours. (I.)*

PSYC-491. Research/Independent Work *Faculty*

This course is open to candidates for departmental honors and to other students with the permission of the departmental chairperson. The preparation of a written and oral scientific report is required. Prerequisite: MCS-102 or permission of instructor. *Four semester hours. (I.)*

PSYC-492. Research/Independent Work *Faculty*

A continuation of PSYC-491. Prerequisite: PSYC-491. *Four semester hours. (I.)*

PSYC-495. Seminar in Psychology *Faculty*

A seminar intended to familiarize the student with the current trends and special topics in theoretical and applied psychology. Emphasis will be given to the preparation and oral presentation of papers on selected topics which will vary from year to year. Open to third- and fourth-year students majoring in psychology. Prerequisite: MCS-102. Three hours per week. *Four semester hours. (SS.)*

Theater and Dance

Associate Professor Scudera (Chair); Assistant Professors Aiken, Redman, Young.

The theater and dance programs at Ursinus prepare students for a life in which intellectual thinking, aesthetic awareness, communication, and collaboration are integral components. The study of theater and dance within the context of a liberal arts education will develop students for whom rigorous intellectual and artistic inquiries are inextricably linked.

The theater and dance department offers coursework in acting, dancing, choreography, directing, history and theory of performance, theatrical design, and production. Our objectives are: 1) to offer historical, critical, and practical training in the performing arts; 2) to develop in students an awareness that the performing arts are vital forms of cultural expression that reflect their socio-political contexts; 3) to provide students with a deep understanding of the balance between awareness, thought, imagination and creative expression; 4) to engage students in the creative process as a unique means to develop their self-knowledge as citizens, individuals and passionate artists who can inspire and transform audiences; and finally, 5) to prepare students for graduate study, a career in the performing arts, or to apply their knowledge and experience to other fields of endeavor.

Dance

Dance as an artistic language utilizes choreography as text, and offers unique opportunities to express and comment upon the human condition. The courses in dance are designed to give students an in-depth and embodied understanding of the art of dance and choreography, the field of dance scholarship, the science of mind/body integration, the craft of performance and the project management skills necessary to produce creative work. In addition to rigorous movement training, the dance major demands the critical thinking, creative imagination, interpersonal communication skills and organizational skills that are central to a liberal arts education.

Major in Dance

A major in Dance consists of 42-46 credits in technique, composition, production, and history/theory/criticism. Requirements:

- At least 2 semesters of DANC-001-008
- DANC-100 and TD-150
- TD-210 and DANC-310
- Two dance technique courses from among the following: DANC-200, 220, 230, 235 and 240
- DANC-300W and DANC-340
- 12 semester hours of dance courses in addition to the above listed requirements. Up to 4 semester hours of DANC-001-008 may be utilized toward this requirement; up to 8 semester hours of 200 level courses may be utilized toward this requirement; up to 8 semester hours may be fulfilled by courses outside the dance department, including: ESS-351, 352, 353; ART-100, 150, 160, 270; MCS-212; THEA-100, 200, 201, 270; TD-130.
- One Capstone course (TD-400, or DANC-491-492)

For fulfillment of ILE credit requirement, students are encouraged to study abroad in a dance program approved by the department, or an off campus internship, or coursework in an approved dance program or festival.

Minor in Dance

A minor concentration in dance consists of 20 credits. Requirements:

- At least 2 semesters of DANC-001-008
- DANC-100 and TD-150
- TD-210 and DANC-310
- One dance technique course from among the following: DANC-200, 220, 230, 235, and 240
- 4 semester hours of additional dance courses. Up to 2 hours of DANC-001-008 may be utilized toward this requirement; all 4 hours may be 200 level courses.

Theater

Theater is a powerful form of experiential learning that can prompt students to grow as individuals, critical thinkers, and artists. Interdisciplinary by nature, theater also compels students to learn about society and the role of theater artists therein. Theater classes and rehearsals are spaces of creative and critical thinking where students undertake deep exploration of the imagination through performance and design. Courses are also contexts for learning theater history concurrent with contemporary developments in theater and performance.

Major in Theater

A major in Theater consists of 42-46 semester hours of credit. Requirements:

- THEA-100

- TD-150
- THEA-200
- At least one design course: TD/ART-130 or THEA-240
- THEA-300W and THEA-301
- One capstone course (TD-400 or THEA-491-492)
- At least four credits of THEA-001-008 or TD-001-008
- At least three additional THEA or TD courses

For fulfillment of ILE credit requirement, student study abroad in a theater program approved by the department, an off-campus internship at a theater, or work in an approved theater program/production.

Up to four credits of THEA-001-008 or TD-001-008 beyond the required four credits may be substituted for one of the additional courses. Up to eight credits of relevant courses in disciplines such as dance, art, music, English and modern languages may be included in the major with approval by theater faculty.

Minor in Theater

A minor concentration in Theater consists of 20 semester hours of credit. Requirements:

- THEA-100
- TD-150
- At least two credits of THEA-001-008 or TD-001-008
- Three additional THEA or TD courses (at least one of which is at the 300 or 400 level).

TD-001-008. Theater/ Dance Practicum *Faculty*

A learning experience in which students assume responsibilities for the technical aspects of major campus theater or dance productions. Production positions vary, but may include stage manager, assistant to the director or choreographer, scenic crew, lighting and sound crew and operators. Graded S/U. Four hours per week. *One semester hour. (A; may be used to partially fill requirement.)*

TD/ART-130. Introduction to Design *Faculty*

In this studio class, students will be introduced to principles of theatrical design and the artistry of imagination. They will explore how theater designers think about images and use elements such as line, shape, space, mass, texture, light and color to create visual expression and communicate dramatic intention in three-dimensional space. Students will gain an understanding of the effect of lighting, scenic and costume design choices for theater and dance productions. Four hours per week. *Four semester hours. (A.)*

TD-150. Stagecraft *Faculty*

An introduction to and participation in all aspects relating to the physical side of creating works for the stage. Students will be introduced to scenic building technique, scenic painting, lighting and sound design and the roles relating to the running of a show (stage manager, running crew, etc.). This class will provide students with an understanding of these endeavors through instructor tutorial, visiting lectures and hands-on experience. Four hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

TD-210. Dance Improvisation *Prof. Aiken*

This course explores dance improvisation both as a choreographic tool and as a performing art. Students will learn how to develop new movement skills, how to sensitize themselves to what is happening around them, how to improvise with music, and how to make choreographic choices while performing. Students are required to keep a journal of their classroom activities. This class is open to all levels of dancers. Four hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

TD-250. Special Topics in Theater and Dance *Faculty*

This course will focus on a specific topic of theater and dance not covered in other courses in the curriculum. Four hours per week. *Four semester hours. (A.)*

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TD-350. Advanced Special Topics in Theater and Dance *Faculty*

This course will focus on a specific topic at an advanced theoretical or critical level within theater and dance not covered in other courses in the curriculum. Three hours per week. *Four semester hours. (A.)*

TD-381. Internship *Faculty*

An off-campus work experience under the supervision of a faculty adviser and an on-site supervisor. Includes periodic meetings with the faculty adviser and completion of an approved research or production project. Prerequisite: major or minor in theater or dance and three courses in the department, junior standing, and approval of a faculty internship adviser. Must complete a minimum of 120 hours. Graded S/U. *Three semester hours. (I.)*

TD-382. Internship *Faculty*

An off-campus work experience under the supervision of a faculty adviser and an on-site supervisor. Includes periodic meetings with the faculty adviser and completion of an approved research or production project. Prerequisite: major or minor in theater or dance and three courses in the department, Junior standing, and approval of a faculty internship adviser. Must complete a minimum of 160 hours. Graded S/U. *Four semester hours. (I.)*

TD-400. Seminar in Performance *Faculty*

This course integrates theoretical and practical course work as the foundation for the student's performance experience. During the course of the semester's work, each student will prepare a significant research document and prepare several works for concert production. The resultant document/performance will be presented publicly. In addition, each student will be responsible for an oral presentation of his or her work. Three hours per week. *Four semester hours. (A.)*

Dance

DANC-001-008. Dance Production: Performance *Faculty*

Students participating in the Ursinus College Dance Company will have opportunities for both informal and produced performances throughout the semester, will be encouraged to create and present their own work, and to perform in works choreographed by faculty and guest artists. The company will work in a wide range of dance forms and styles including jazz dance, modern dance, social dance, improvisation, partnering, etc. It is highly recommended that students participating in the dance company also take a dance technique course. Graded S/U. Four hours per week. *One semester hour. (A; may be used to partially fill requirement.)*

DANC-100. Introduction to Dance *Faculty*

This course is designed to broaden students' understanding and appreciation of contemporary dance in the United States. Students will examine a wide variety of styles and forms, including ballet, modern, postmodern, hip-hop and social/vernacular dance. Through the study of some of the major choreographers and dance trends in the U.S., the class will address the diverse creativity of individual and cultural expression through the art of dance. This course involves both critical analyses of performance and theory as well as practical dance experience. Four hours per week. *Four semester hours. (A.)*

DANC/ESS-200. Fundamental Dance Technique *Prof. Young*

An introduction to dance and movement techniques. The class will focus on the basic principles of dance movement, including alignment, coordination, musicality, and locomotion through space. Students will develop increased body awareness, flexibility, strength, and ease within a broad movement vocabulary. This class is designed for students with no previous experience in dance technique. Students may take this course twice for credit. Four hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

DANC-220. Contemporary Ballet *Prof. Young*

Designed to develop in the student a deep and sophisticated body awareness, this course interweaves contemporary ballet and modern dance techniques. The warm-up opens, extends and integrates the body by focusing on alignment, breath and movement efficiency. Students will build strength, flexibility and coordination by beginning each class with floor work, moving next to the barre, and culminating with danced combinations in the center that combine the line and shape of ballet with the momentum, falling and flying of contemporary modern dance. Prerequisite: DANC/ESS-200 or permission of the instructor. Students may take this course up to six times for credit. Four hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

DANC- 230. Jazz Dance *Prof. Young*

This course celebrates jazz dance as a passionate, expressive and continuously evolving form. Based on the premise that jazz dance is fundamentally inspired by vernacular dance and music, the class explores movement sourced from a wide range of music including swing, blues, jazz, ragtime, rhythm and blues, soul and funk. The class will consist of a warm-up designed to develop strength, ease of movement, flexibility and musicality, and move into across-the-floor progressions culminating in longer danced combinations. Students will increase their technical skills as well as deepen their stylistic sophistication. Prerequisite: One of the following: DANC-100, DANC/ESS-200 or TD-210, or permission of the instructor. Students may take this course up to six times for credit. Four hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

DANC-235. Contemporary Modern Dance *Prof. Aiken*

This course introduces students to methods and practices in contemporary modern dance. Prerequisite: One of the following: DANC-100, DANC/ESS-200 or TD-210, or permission of the instructor based on previous training. Students may take this course up to six times for credit. Four hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

DANC-240. Repertory *Faculty*

In this course students will have an intensive rehearsal process with the goal of mastery of a choreographic work which will be performed at Ursinus. This course is open to dance minors and majors or by instructor's permission. Students may take this course up to six times for credit. Four hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

DANC-245. Contact Improvisation/Partnering *Faculty*

This class explores partnering techniques based in momentum, energy flow and use of weight, both within a context of improvised movement as well as within choreographic phrases. Students will learn skills of supporting, lofting, rolling and flying in connection with another body. Prerequisite: One of the following: DANC/ESS-200, 210 or 220 or permission of the instructor. Students may take this course up to six times for credit. Four hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

DANC-250. Special Topics in Dance *Visiting Faculty*

A focused exploration of special subject areas within the field of dance, including hip hop, African Dance, Advanced Classical Ballet/Pointe, Tap, and Ballroom Dance. Four hours per week. *Two semester hours. (A; may be used to partially fill requirement.)*

DANC-300W. Dance History *Faculty*

A historical survey of the origin, growth and development of 20th century Western Theatrical Dance. The course will focus on the forces, processes and personalities that influenced dance during this time. Students will develop a critical understanding of the major trends in the development of dance in the twentieth century, as well as examining these trends in relation to their socio-political context. Prerequisite: DANC100. Four hours per week. *Four semester hours. (A, D.)*

DANC- 310. Dance Composition *Faculty*

An immersion into the creative act of choreography. Students will examine the compositional process both from a theoretical and historical perspective as well as by creating their own work. Through both short, in class assignments as well as extensive work outside of class, students will investigate the ideas of form and content in choreography, "classical" rules and how and whether to break them, the development of a personal and expressive movement vocabulary, and various methodologies for creating both solo and group work. Prerequisites: DANC-100, TD-210; suggested-DANC-300. Students may take this course up to three times for credit. Four hours per week. *Four semester hours. (A.)*

DANC-340. The Thinking Body: Somatic Theory and Practice *Prof. Aiken*

Utilizing lectures, discussion and guided movement explorations, students will study the relationships between the form and function of the mind/body. Through a study of anatomy, physiology and the mind, students will develop a deeper understanding of the influence of the mind on movement, posture and experience. All students are required to keep weekly journals, present classroom materials in a formal assignment, and conduct a major research project to illustrate their command of kinesiological principles and somatic theory. Prerequisites: DANC-100, at least one 200 level DANC-course. Four hours per week. *Four semester hours. (A.)*

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DANC-350. Special Topics in Dance *Faculty*

This course will focus on a specific topic at an advanced theoretical or critical level within theater not covered in other courses in the curriculum. Three hours per week. Four semester hours. Topics might include: History of Jazz Dance, Perception, Imagination and Creativity, Feminist Choreographies, Aesthetics and Education, World Dance, Dance Pedagogy. (A.)

DANC-450. Directed Studies in Dance *Prof. Aiken, Prof. Young*

Advanced individual work on a project related to the study of dance. Prerequisites: eight credits of 300-400 level coursework in dance, demonstrated competence in the specific area of study, a written proposal, and permission of a department faculty member who will serve as project adviser. *Four semester hours. (I.)*

DANC-491. Research/Independent Work *Faculty*

This work is open to candidates for departmental honors and to other students with the permission of the departmental chair. *Four semester hours. (I.)*

DANC-492W. Research/Independent Work *Faculty*

A continuation of course 491, culminating in a written and oral presentation of a major research project. Prerequisite: DANC-491. *Four semester hours. (I.)*

Theater

THEA 001-008. Theater Laboratory *Prof. Scudera, Prof. Redman*

A learning experience in which students perform in major campus productions under the direction of theater faculty. Prerequisite: permission of the instructor. Graded S/U. *One semester hour. (A; may be used to partially fill requirement.)*

THEA-100. Introduction to Theater *Prof. Scudera*

A study of the art of theater through an examination of varieties of theater spaces, literary genres, the work of actors, playwrights, directors, and designers, and the nature of the audience. Three hours of class plus one hour arranged production work per week. *Four semester hours. (A.)*

Note: Students who have received credit for CST- 111 may not receive credit for THEA-100.

THEA-200. Acting I *Prof. Scudera*

An introduction to the fundamental acting techniques of the Stanislavski system. Students participate in acting exercises, improvisation, monologue and scene study. Prerequisites: THEA-100, or permission of the instructor. Four hours per week. *Four semester hours. (A.)*

Note: Students who have received credit for CST- 225 may not receive credit for THEA-200.

THEA-201. Acting II *Prof. Scudera*

Advanced acting theory and physical training are applied to the development of technique. Building a role is explored through in-depth character analysis and performance, movement exercises, improvisation and advanced monologue and scene study. Prerequisites: THEA-200. Four hours per week. *Four semester hours.*

Note: Students who have received credit for CST- 226 may not receive credit for THEA-201. (A.)

THEA-240. Special Topics in Theater Production or Design *Faculty*

This course will focus on a specific topic of theater production, technical theater or design not covered in other courses in the curriculum. Three hours per week. Four semester hours. Topics might include: Scenic Design, Costume Design, Lighting Design, Stage Management. Three hours per week. *Four semester hours. (A.)*

THEA-250. Special Topics in Performance *Faculty*

This course will focus on a specific topic of theatrical performance not covered in other courses in the curriculum. Four hours per week. Four semester hours. Topics might include: Performance Composition, Physical Comedy and Improvisation, Voice and Diction, Solo Performance, Mask and Movement, Puppet Theater Production. Four hours per week. *Four semester hours. (A.)*

THEA-270. Dramaturgy *Faculty*

Fundamentals of dramaturgy and its application through production dramaturgy, from Lessing's Hamburg dramaturgy, Piscator and Brecht's dramaturgy, to contemporary European and American dramaturgical practices. Will include methodologies for script preparation and analysis, research of production histories and applicability to new productions. Prerequisite: THEA-100 Three hours per week. *Four semester hours. (A.)*

THEA-300W. History of Theater and Drama I: Classical Stages *Prof. Redman*

A historical exploration of the development of dramatic literature, theater performance, theatrical spaces and production styles as vital expressions and reflections of social, political, and cultural attitudes and movements from Ancient Greece and Classical Japanese theater through Molière and French Neoclassicism. Prerequisite: THEA-100 or permission of instructor. Three hours per week. *Four semester hours. (H.)*

THEA-301. History of Theater and Drama II: Raising Revolutions and the Modern/Postmodern Stage *Prof. Redman*

This course delves into the revolutionary, ever-shifting conceptions of the role of theater, the human condition and truth in society and how practitioners—playwrights, directors and designers—have manifested their theoretical ideas about theater and the world in their work from 1900 to the present. Readings in theater history, plays, manifestos, plus dramatic and performance theory will provide the link between revolutionary cries for change in theater, aesthetic developments and the various visions of theater. Prerequisite: THEA-100 or permission of instructor. Three hours per week. *Four semester hours. (H.)*

THEA-350. Advanced Special Topics in Theater *Faculty*

This course will focus on a specific topic at an advanced theoretical or critical level within theater not covered in other courses in the curriculum. Three hours per week. Four semester hours. Topics might include: Feminist Theater, Theater for Living, Performance Theory and Practice, Collective Theater Companies and Democratic Practice, Theater as Expression of Cultural Identities. Three hours per week. *Four semester hours. (A.)*

THEA-370. Directing I *Prof. Scudera*

An exploration into the role of the director in the theatrical process. Research in the history, theory and application of directing is combined with actual directing assignments that include short scenes and one-act plays. Pre-requisites: THEA-100, THEA-200, THEA-270. Four hours per week. *Four semester hours. (A.)*

THEA-450. Directed Studies in Theater *Faculty*

Advanced individual work on a project related to the study of theater. Prerequisites: eight credits of 300/400 level coursework in theater, demonstrated competence in the specific area of study, a written proposal, and permission of a department faculty member who will serve as project adviser. Offered in fall semester. *Four semester hours. (I.)*

THEA-491. Research/Independent Work *Faculty*

This work is open to candidates for departmental honors and to other students with the permission of the departmental chair. *Four semester hours. (I.)*

THEA-492. Research/Independent Work *Faculty*

A continuation of course 491, culminating in a written and oral presentation of a major research project. Prerequisite: 491. *Four semester hours. (I.)*

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 Jillian Yamma, M.B.A., Sports Information Director
 Charlene Wysocki, B.A., Coordinator of Research and Sponsored Programs

The Faculty

President of the College

John Strassburger, Ph.D.

B.A., Bates College; M.A., Cambridge University; Ph.D., Princeton University

Emeriti

William Ernest Akin, Ph.D., *Professor of History, Emeritus*

B.A. and M.A., University of Maryland, Ph.D., University of Rochester

Albert Curtis Allen, Jr., Ph.D., *Professor of Biology Emeritus*

B.A., College of Wooster; M.A., Ph.D., University of Michigan

Jane Ann Barth, M.A., *Professor of Chemistry, Emerita*

B.A., Mount Holyoke College; M.A., Smith College

Nicholas O. Berry, Ph.D., *Professor of Politics, Emeritus*

B.A., Bethany College, M.A., Ph.D., University of Pittsburgh

Richard Stuart BreMiller, M.A., *Professor of Mathematics, Emeritus*

B.S., United States Merchant Marine Academy; M.S., Drexel University; M.A., University Of Delaware

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B.S., Ursinus College; M.Ed., Temple University

James Pressley Craft, Ph.D., *Professor of Political Science, Emeritus*

B.S., U.S. Naval Academy; M.S., Massachusetts Institute of Technology; Ph.D., University of Pennsylvania

Louis Aubrey Decatur, Ph.D., *Professor of English, Emeritus*

A.B., M.A., Ph.D., University of Maryland

George C. Fago, Ph.D., *Professor of Psychology, Emeritus*

A.B., Franklin & Marshall College; M.S., Ph.D., University of Pittsburgh

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B.A., Otterbein College; M.S., Ph.D., Miami University

Judith Emma Fryer, M.S., *Associate Professor & Reference Librarian, Emerita*

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Yvonne Gros, M.A., *Associate Professor of Exercise And Sport Science, Emerita*

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Raymond Victor Gurzynski, M.Ed., *Professor of Health and Physical Education, Emeritus*

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Nancy Lineken Haglegans, Ph.D., *Professor of Mathematics and Computer Science Emerita*

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Keith Jordan Hardman, Ph.D., *Professor of Philosophy and Religion, Emeritus*

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Joyce Elizabeth Henry, Ph.D., *Professor of English and Communication Studies and Theatre, Emerita*

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A.B., Kenyon College; M.S., Ph.D., Lehigh University; M.S., Villanova University

Conrad Edward Kruse, D.Sc., *Professor of Biology, Emeritus*

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Faye French Shaw, M.S., *Associate Professor of Chemistry, Emerita*
B.A., University of California; M.S., West Chester State College

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B.S., Massachusetts Institute of Technology; M.S., Tufts University; Ph.D., Northeastern University

Ray Karl Schultz, Ph.D., *Professor of Chemistry, Emeritus*
B.S., Muhlenberg College; M.S., Ph.D., Lehigh University

Evan Samuel Snyder, Ph.D., *Professor of Physics, Emeritus*
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Martha Carroll Takats, Ph.D., *Professor of Physics, Emerita (1969)*
B.A., Wellesley College; M.S., University of Wisconsin; Ph.D., University of Pennsylvania

Levie Van Dam, Ph.D., *Professor of Biology, Emeritus*
B.S., M.S., Ph.D., Groningen State University, The Netherlands

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M.A., University of Pennsylvania; Ph.D., Bryn Mawr College

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B.S., University Of Maine; M.S., Springfield College

Theodore Andrew Xaras, M.F.A., *Professor of Fine Arts Emeritus*
B.F.A., Philadelphia College of Art; M.F.A., Tyler School of Art

Frederick Donald Zucker, Ph.D., *Professor of Political Science, Emeritus*
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Active Teaching Faculty

Chris Aiken, M.F.A., *Assistant Professor of Dance (2003)*
B.A., Brandeis University; M.F.A., University of Illinois

Paula Álvarez, law degree, *Lecturer in Modern Languages (2000)*
Master's degree, CEOE, Madrid; law degree, Universidad Complutense de Madrid

Beth A. Bailey, Ph.D., *Associate Professor of Biology (1997)*
B.S., Pennsylvania State University; Ph.D., Temple University School of Medicine

Deborah Barkun, Ph.D., *Visiting Assistant Professor of Art (2008)*
B.F.A., Carnegie Mellon University; M.A. Bryn Mawr College; Ph.D., Bryn Mawr College

Leah Berman, Ph.D., *Associate Professor of Mathematics and Computer Science (2002)*
B.A., Lewis and Clark College; M.S., Ph.D., University of Washington

URSINUS COLLEGE CATALOGUE

Charles Bendas, Ph.D., *Lecturer in Biology (2007)*

B.A., M.S., Rutgers University; Ph.D., Hahnemann Medical College

Cindy Biel, Ph.D., *Instructor in Modern Languages (2002)*

B.A., West Chester University; M.A., University of Pennsylvania, Ph.D., Temple University

Krista Billings, MFA, *Lecturer in Theater & Dance (2005)*

BFA, University of Wyoming; MFA, Temple University

Joel Bish, Ph.D., *Assistant Professor of Psychology (2005)*

B.S., York College of Pennsylvania; M.A., Towson University; Ph.D., University of New Mexico

Laura Borsdorf, Ph.D., *Professor of Exercise and Sport Science (1986)*

B.S., M.S., Kansas State University; Ph.D., Arizona State University

Stephen Bowers, M.S., MBA, *Professor of Business and Economics, Executive in Residence (2002)*

B.S., M.S., Massachusetts Institute of Technology; MBA, Harvard Business School

Victor Brown, MBA, *Lecturer in Business and Economics (2003)*

B.S., DeSales University; MBA, Temple University

Arlene Buchman, M.Ed., *Lecturer in Education (2000)*

B.S., M.Ed., Temple University

Douglas McD. Cameron, Ph.D., *Professor of Spanish (1987)*

B.A., Harvard College; C. Phil., Ph.D., University of California, San Diego

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B.F.A., M.F.A., Tyler School of Art

Thomas Carroll, Ph.D., *Assistant Professor of Physics (2007.)*

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Andrew Case, M.A., *Lecturer in Education (2006)*

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Christopher Cellucci, Ph.D., *Associate Professor of Physics (1998)*

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B.A., Yale University; M.S. and Ph.D., University of Miami

Betsy Scott Chapman, B.A., *Lecturer in Exercise and Sport Science (2001)*

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Roger A. Chavez, M.F.A., *Lecturer in Art (2004)*

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B.S., MBA, M.S., Lehigh University

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B.S.N., Widener College; R.N., A.T.C., M.S., Temple University

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B.A., Pennsylvania State University; MBA, University of Pittsburgh. Ph.D., Temple University

Hugh R. Clark, Ph.D., *Professor of History (1982)*

B.A., M.A., Ph.D., University of Pennsylvania

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B.A., University of Kansas; Ph.D., University of Texas at Austin

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B.S., University of Pittsburgh; Ph.D., Stanford University

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B.A., M.A., Purdue University; Ph.D., Harvard University

Cheryl Everett, M.Ed., *Lecturer in Education (2004)*

B.S., Millersville State University; M.Ed., West Chester State University

Gerard Joseph Fitzpatrick, Ph.D., *Professor of Politics (1983)*

B.A., Bloomsburg State College; M.A., Ph.D., University of Virginia

Roger Florka, Ph.D., *Associate Professor of Philosophy (2000)*

B.A., University of California, Berkeley; Ph.D., UCLA

URSINUS COLLEGE CATALOGUE

John Henry French, D.M.A., *Professor of Music (1979) William F. Heefner Chair of Music*

B.M., Philadelphia College of the Performing Arts; M.M., Westminster Choir College; D.M.A., University of Cincinnati

Holly Hubbs Gaines, D.A., *Assistant Professor of Music (2003)*

B.S., Quincy University; M.A., Western Illinois University; D.A., Ball State University

Thomas Edward Gallagher, Ph.D., *Professor of Anthropology and Sociology (1977)*

B.A., University of Delaware; M.A., Ph.D., Temple University

Desirée Garcia, Ph.D., *Assistant Professor of English/Film Studies (2008)*

B.A., Wellesley College; ; Ph.D., Boston University

Cynthia Gargano, M.S., *Lecturer in Mathematics and Computer Science (2003)*

B.A., East Stroudsburg University; M.S., Penn State University

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B.A., Temple University; M.A. University of Maryland College Park; Ph.D., University of Maryland College Park

Aviva Geismar, M.F.A., *Visiting Assistant Professor of Theater and Dance (2007)*

B.F.A., New York University; M.F.A., University of Wisconsin, Milwaukee

Edward Gildea, M.A., *First-Year Student Coordinator, Lecturer in Philosophy and Religion (1998)*

B.A., Ursinus College; M.A., Villanova University

Kathryn A. Goddard-Doms, Ph.D., *Associate Professor of Biology, Assistant Dean (1992)*

B.S., Gettysburg College; M.S., Bucknell University; Ph.D., University of Connecticut

Thomas Goebeler, Ph.D., *Assistant Professor of Mathematics and Computer Science (2002)*

B.A., Shippensburg University; Ph.D., University of Virginia

Stewart C. Goetz, Ph.D., *Professor of Philosophy (1988)*

B.S., Michigan State; M. Litt., Oxford University; Ph.D., University of Notre Dame

Meredith Goldsmith, Ph.D., *Assistant Professor of English, (2005)*

B.A., M. Phil., Ph.D., Columbia University

Sheryl Baratz Goodman, Ph.D., *Associate Professor of Media & Communication Studies (1997)*

B.S., Georgetown University; M.A., Ph.D., Temple University

Walter Greason, Ph.D., *Assistant Professor of History (2005)*

B.A., Villanova University; Ph.D. Temple University

Lisa Tremper Hanover, M.A., *Adjunct Professor of Fine Arts (1987) Muriel M. Berman Director of the Berman Museum of Art*

B.A., University of Richmond; M.A., University of Southern California

Melissa Hardin, Ph.D., *Visiting Assistant Professor of Spanish and Study Abroad Coordinator (1996-1997)*

A.B., University of Missouri-Columbia; M.A., Middlebury College; Ph.D., Washington University in St. Louis

Cindy K. Harris, MBA, C.P.A., *Associate Professor of Business and Economics (1984)*

B.A., MBA, University of Pennsylvania; C.P.A., Commonwealth of Pennsylvania

Christina Dallett Hemphill, Ph.D., *Professor of History (1988)*

A.B., Princeton University; M.A., Ph.D., Brandeis University

Michael Herbst, M.S., *Lecturer in Physics (2007)*

B.A., Oberlin College; M.S., University of Pennsylvania

Ronald Eugene Hess, Ph.D., *Hain Professor of Chemistry (1966)*

B.S., Lock Haven State College; Ph.D., Cornell University

Rebecca Hess, M.S., *Lecturer in Biology (2007)*

B.S., University of North Carolina; M.S., University of Virginia.

Elizabeth Ho, Ph.D., *Assistant Professor of English (2008)*

B.A., Smith College; M.A./M.A., University of Vermont/Rutgers University; Ph.D., Rutgers University

Steven Hood, Ph.D., *Professor of Politics (1987)*

B.A., M.A., Brigham Young University; Ph.D., University of California, Santa Barbara

Patrick Hurley, Ph.D., *Assistant Professor of Environmental Studies (2008)*

B.A. (Gov & Politics, German lang), University of Maryland; M.S. University of Oregon; Ph.D., University of Oregon

Garrick Imatani, M.F.A., *Assistant Professor of Art (2007)*

B.A., University of California, Santa Barbara; M.F.A., Columbia University.

Charles A. Jamison, M.L.S., *Professor and Library Director (1982)*

B.A., Stockton State College; M.L.S., Drexel University

Rebecca Jaroff, Ph.D., *Assistant Professor of English (1999)*

B.A., Ursinus College; M.A., Ph.D., University of Delaware

Leah Joseph, Ph.D., *Assistant Professor of Environmental Studies (2005).*

B.S., University of Rochester; M.S., Ph.D., University of Michigan

James Houghton Kane, J.D., *Associate Professor of Politics (1971)*

B.A., Houghton College; M.A., University of Pennsylvania; J.D., Temple University

Shirin Kazemi, M.F.A., *Lecturer in Art (2005)*

B.F.A., University of Iowa; M.F.A., Yale University

M. Nzadi Keita, M.A., *Visiting Assistant Professor of English and Creative Writing (1997) and Creative Writer in Residence*

B.A., Temple University; M.A., Vermont College

Elizabeth Kessler, Ph.D., *Visiting Assistant Professor of Liberal Studies (2007)*

B.A., M.A., University of Notre Dame; Ph.D., University of Chicago.

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B.A., M.A., Michigan State University; Ph.D., University of Illinois

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B.S., Northern Illinois University; Ph.D., Indiana University

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B.S., University of the Sciences in Philadelphia; Ph.D., University of Pennsylvania

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A.B., Dartmouth College; Ph.D., Johns Hopkins University

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B.A., Bloomsburg; M.A., Duke University; Ph.D., Lehigh University

Stephen Kozol, J.D., *Lecturer in Education (2005)*

B.A., Brandeis University; M.A., West Chester University; J.D., The George Washington University National Law Center

Matthew Kozusko, Ph.D., *Assistant Professor of English (2003)*

B.A., University of Texas; Ph.D., University of Georgia

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URSINUS COLLEGE CATALOGUE

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B.A. University of South Florida; M.S., Virginia Tech University

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B.A., University of Colorado; M.A., Ph.D., University of Denver

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B.M., North Carolina School of the Arts; M.M., Eastman School of Music; M.S., Wake Forest University; Ph.D., Georgia Institute of Technology

Anthony L. Lobo, Ph.D., *Associate Professor of Biology (1995)*

B.S., Pennsylvania State University; Ph.D., Cornell University

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B.A., M.S., University of Pennsylvania

Peter Luborsky, Ph.D., *Lecturer in Modern Languages (2001)*

B.A., Harvard College; Ph.D., University of Massachusetts

Annette Vock Lucas, Ph.D., *Associate Dean and Professor of French (1967)*

B.A., George Washington University; M.A., New York University; Ph.D., Bryn Mawr College

Adam Lusk, ABD, *Lecturer in Politics (2005)*

B.A., Ursinus College; M.A., New York University; ABD, Temple University

Benita Lüttcher-Hoorfar, M.A., *Lecturer in German (1997)*

B.A., University of Hannover, West Germany; M.A., University of Colorado at Boulder

Rebecca Lyczak, Ph.D., *Associate Professor of Biology (2002)*

B.S. College of New Jersey; Ph.D., Cornell University

Jonathan Lytle, M.A., *Lecturer in Psychology (2007)*

B.A., University of Oklahoma; M.A., Temple University

Jonathan Marks, Ph.D., *Associate Professor of Politics (2006)*

B.A., M.A., Ph.D., The University of Chicago

Susan Masciantonio, M.A., *Lecturer in Education (2003)*

B.A., Ursinus College; M.A., Villanova University

Mary Ellen Matthews, M.A.T., *Dean of Continuing Education, Center for Continuous Learning (2001)*

B.A., Beloit College; M.A.T., University of North Carolina, Chapel Hill

Walter Maxwell, M.S., *Lecturer in Mathematics and Computer Science (2005)*

B.S., PMC Colleges; M.Ed., Widener University; M.S., University of Southern Mississippi

David McAllister, ABD, *Lecturer in History (2006)*

B.A. Rutgers University; ABD Temple University

David McCaig, M.A., *Lecturer in Education (2004)*

B.A., St. Joseph's University; M.A., Villanova University

The Hon. Joseph H. Melrose Jr., M.A., *Professor of International Relations and Ambassador in Residence (2002)*

B.S., LL.D., Ursinus College; M.A., Temple University; former U.S. Ambassador to Sierra Leone

Jay Kenneth Miller, Ph.D., *Associate Dean and Professor of Media and Communication Studies (1984)*

B.A., M.C.R.P., Rutgers University; M.A., Miami University; Ph.D., The Union Institute

Matthew Mizenko, Ph.D., *Associate Professor of Modern Languages* (2000)

B.A., Columbia University; Ph.D., Princeton University

Laura Knorr Moliken, B.S., *Visiting Assistant Professor of Exercise and Sport Science* (1999)

B.S., Old Dominion University

Diane Monroe, Artist in Residence, Music (2007)

B.M., Philadelphia Musical Academy

Shannon Mudd, Ph.D., *Assistant Professor of Business and Economics* (2005),

B.A., Emory University; M.A., Ph.D., University of Chicago

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B.A., Transylvania University; ; Ph.D., University of Michigan

Douglas Nagy, Ph.D., *Associate Professor of Physics* (1979)

B.S., M.S. and Ph.D., Pennsylvania State University

Jeffrey W. Neslen, Ph.D., *Associate Professor of Mathematics* (1983)

B.S., Hobart College; Ph.D., University of Rochester

Melody Nixon, Ph.D., *Assistant Professor in Modern Languages* (2005)

B.A., Kenyon College; Ph.D., University of Michigan

Frances Claire Novack, Ph.D., *Professor of French* (1979)

B.A., Barnard College; Ph.D., Cornell University

Regina Smith Oboler, Ph.D., *Professor of Anthropology and Sociology* (1988)

B.A., Antioch College; Ph.D., Temple University

Heather M. O'Neill, Ph.D., *Professor of Business and Economics* (1986)

B.S., B.A., University of Vermont; M.A., Ph.D., Georgetown University

Kristin Paisley, M.S., *Lecturer in Exercise and Sports Science* (2001)

B.S. Slippery Rock University; M.S., Shippensburg University

Brian Pfennig, Ph.D., *Laboratory Instructor in Chemistry* (2004)

B.S. Albright College; Ph.D., Princeton University

Victoria-Codrina Popescu, Ph.D., *Assistant Professor of Chemistry* (2003)

B.S., University of Bucharest; M.S., Ph.D., Carnegie Mellon University

Gabrielle Principe, Ph.D., *Associate Professor of Psychology* (2002)

B.A., Temple University; Ph.D., University of North Carolina

Nicholas D. Principe, M.S., *Laboratory Instructor in Biology* (2003)

B.S., North Carolina State University; M.S., Cornell University

Karen Randall, Ph.D., *Assistant Professor of Business and Economics* (1998)

B.A., Ph.D., Lehigh University; M.S., Drexel University

Beverly Redman, Ph.D., *Assistant Professor of Theater and Dance* (2006)

B.A., Saint Mary's College of Maryland; M.A., Georgetown University; MFA, Ph.D., University of California

Nathan Rein, Ph.D., *Associate Professor of Philosophy and Religion* (2002)

B.A. Columbia University; Ph.D., Harvard University

The Rev. Charles Rice, M.Div., *Chaplain, Visiting Assistant Professor* (1997)

B.S., United States Coast Guard Academy; M. Div., Crozer Theological Seminary

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B.A., Ursinus College; M.Div./ABD, Harvard Divinity School

URSINUS COLLEGE CATALOGUE

Kenneth D. Richardson, Ph.D., *Associate Professor of Psychology (1986)*

B.A., Indiana University of Pennsylvania; Ph.D., Arizona State University

Bruce Edward Rideout, Ph.D., *Professor of Psychology (1979)*

A.B., Boston University; M.S. and Ph.D., University of Massachusetts

Lewis Riley, Ph.D., *Associate Professor of Physics (2002)*

B.S., Guilford College, M.S., Ph.D., Florida State University

Rebecca Roberts, Ph.D., *Associate Professor of Biology (2001)*

B.A., Clark University; Ph.D., University of Massachusetts

Patricia Richards Schroeder, Ph.D., *Professor of English (1983)*

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Gregory Scranton, M.F.A., *Assistant Professor in Media and Communication Studies (2005)*

B.A., Oberlin College; M.F.A., University of Minnesota-Twin Cities

Domenick Scudera, M.F.A., *Associate Professor of Theater (1999)*

B.A., Colgate University; M.F.A., Pennsylvania State University

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B.A., Villanova University; M.A., Ph.D., Temple University

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B.A., Brandeis University; M.A., Ph.D., Bryn Mawr College

Matthew Shoaf, Ph.D., *Assistant Professor in Art (2005)*

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B.A. Vassar College; M.F.A., University of Maryland.

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B.A., M.A., Teacher's Certification, University of Michigan; Ph.D., Indiana University

Peter Forrest Small, Ph.D., *Professor of Biology (1972)*

B.S., Austin Peay State University; M.S., East Tennessee State University; Ph.D., Miami University

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B.S. Brigham Young University, M.S., University of Utah, Ph.D., Yale University

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Paul Stern, Ph.D., *Professor of Politics (1989)*

B.A., Michigan State University; M.A., Ph.D., University of Chicago

Giovanna Steyaert, M.S., *Instructor (Visiting) of Modern Languages (2000)*

B.S. Ed., Instituto Pedagógico Nacional; M.S. University of Edinburgh

Deborah Stoltz, M.A., *Lecturer in Modern Languages (2006)*

B.A., Bucknell University; M.A., West Chester University

John Strassburger, Ph.D., *President of the College, Professor of History (1995)*
B.A., Bates College; M.A., Cambridge University; Ph.D., Princeton University

Cory Straub, Ph.D., *Assistant Professor of Biology (2008)*
B.A., Indiana University of Pennsylvania; M.S. Central Washington University; Ph.D., Washington State University

Victor J. Tortorelli, Ph.D., *Professor of Chemistry (1981) Samuel H. and Anna M. Hess Professor of Chemistry*
B.S., Manhattan College; M.A., Ph.D., Princeton University

Colette Trout, Ph.D., *Professor of French, Helen Rogalinski Clarke Chair of Modern Languages (1983)*
License, Université de Nanterre; M.A., Ph.D., Bryn Mawr College

Ronald Unger, MBA, *Lecturer in Business and Economics (2003)*
M.A., M.S., B.A., University of Pennsylvania; MBA, Temple University

Sameema Usmani, MFA, *Lecturer in English (2006)*
B.S., University of Virginia; MFA, Temple University

Michelle Vandeberg, M.S. *Lecturer in Exercise and Sports Science (2001)*
B.S., M.S., Indiana University

Jennifer VanGilder, Ph.D., *Assistant Professor of Business and Economics (2006)*
B.S., B.A., Bethany College; M.A., Ph.D., SUNY Binghamton

Henry Virgilio, Ph.D., *Lecturer in Modern Languages (2002)*
B.S., Temple University; M.A., Columbia University and University of Pennsylvania; Ph.D., Georgetown University

Jon Volkmer, Ph.D., *Professor of English (1987)*
B.A., University of Colorado at Denver; M.A., University of Denver; Ph.D., University of Nebraska at Lincoln

Barbara von Schlegell, Ph.D., *Visiting Associate Professor in Philosophy and Religion (2006)*
B.A., Grinnell College; M.A., Ph.D. University of California, Berkeley

Robert Waddington, MFA, *Lecturer in Art (2007)*
BFA, The School of Visual Arts; MFA, The University of Pennsylvania

Tina Wailgum, Ph.D., *Associate Professor of Exercise and Sport Science (1983)*
B.S., Ursinus College; M.Ed., Ph.D., Temple University

Rosemarie Wait, M.Ed., *Instructor in Mathematics and Computer Science (1992)*
B.S., Kutztown University; M. Ed., Penn State University

Richard L. Wallace, Ph.D., *Associate Professor of Environmental Studies (2002)*
B.A., University of Vermont; M. E. S., Ph.D., Yale University

Greg Weight, Ph.D., *Lecturer in English (2005), Coordinator of Student Fellowships and Scholarships*
B.A., Pomona College; M.A., Ph.D., University of Delaware

John Moore Wickersham, Ph.D., *Professor of Classics (1972)*
B.A., M.A., University of Pennsylvania; B.A., New College, Oxford; Ph.D., Princeton University

Gordon Williams, Ph.D., *Assistant Professor of Mathematics and Computer Science (2005)*
B.A., Hampshire College; M.S., University of Massachusetts; Ph.D., University of Washington

Eric J. Williamsen, Ph.D., *Associate Professor of Chemistry (1995)*
B.A., Carleton College; Ph.D., University of North Carolina

Sarah Willig, Ph.D., *Lecturer in Environmental Studies (2002)*
A.B., Princeton University; Ph.D., University of Pennsylvania

Louise Woodstock, Ph.D., *Assistant Professor of Media and Communication Studies (2003)*
B.A., Oberlin College; M.A., Ph.D., University of Pennsylvania

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L. Kathlene Wright, M.Ed., *Lecturer in Exercise and Sport Science (1998), Athletic Trainer*
A.S., Harcum Junior College, B.S., West Chester University, M.Ed., The Pennsylvania State University

Mohammed Yahdi, Ph.D., *Associate Professor of Mathematics (2001)*
B.A., University of Rabat-Morocco; M.Sc., Ph.D., University of Paris 6, France

Yoshitomo Yamashita, Ph.D., *Lecturer in Modern Languages (2007)*
B.A., Soka University, Tokyo, Japan; M.A., The Ohio State University; Ph.D, The University of Arizona

Cathy Young, M.F.A., *Assistant Professor of Dance (2003)*
B.A., Harvard University; M.F.A., University of Illinois

Date in parentheses is date of first appointment at Ursinus College.

Holders of Endowed Chairs

Joseph T. Beardwood, III, Chair of Mathematics
Roger Coleman (2010)

Brownback-Wagner Chair in Health Sciences
Ellen Dawley (2008)

Guilliam H. Clamer Chair of Physics
Vacant

Helen Rogalinski Clarke Chair of Modern Languages
Colette Trout (2012)

Hain Professorship in Chemistry
Ronald Hess (2008)

William F. Heefner Chair of Music
John French (2008)

Samuel H. and Anna M. Hess Professor of Chemistry
Victor Tortorelli (2009)

McClure Professorship in English
Vacant

Eleanor Frost Snell Chair of Health and Physical Education
Laura Moliken (2008)

Ross Frederick Wicks Distinguished Professorship in Philosophy and Religion
Stewart Goetz (2009)

Officers of the Faculty 2007-2008

Chairman: President Strassburger
Secretary: Professor Wickersham
Parliamentarian: Professor Richard King

Faculty Committees 2008-2009

Academic Council

Membership: Strassburger, Levy, Rein (H '08), Berman (S '08), Harris (Ss '08), Sidie (Ar Lg, '08), Doughty (H '09), Engstrom (S '09), Edwards (Ss '09), Goldsmith (Ar Lg '09), Ashley O'connell, Samantha Fortin.

Academic Standards and Discipline

Membership: Levy, Boris, Nolan, Matthews, Lucas, Gildea, Borsdorf, Dole (H '08), Tortorelli (S'09), Goodman (Ss '10).

Academic Discipline Subcommittee Student Members: Shoji Samson, Danielle Welhaf

Academic Support

Membership: Lucas, Evans, [Scudera] Hanover to Replace Scudera Spring 2008, Jamison (H '08), Kane (Ss '09), Yahdi (S '10), Fabian Lemp, Andrew Winters

***Arts & Lecture Subcommittee**

Membership: L. Hanover (Ch), A. Lucas, D. Camp, L. Korenkiewicz, A. Martin, J. Melrose, R. Oboler, D. Scudera, S. Shifrin, S. Widman, C. Young, R. Roberts, C. Aiken, C. Trout, Caitlin Fee, Samantha Fortin, Anna Dimeglio, Alexandra Wilson

*** Computer & Technology Advisory Committee (Ctac)**

Membership: J. King, D. Skorina, J. Bennett, V. Waskiewicz, R. Davidson, G. Principe, J. De Arana, L. Edwards

*** Educational Advisory Group for The Berman Museum**

Membership: S. Shifrin (Ch), L. Berman, R. Evans, N. Keita, R. Roberts, G. Scranton, D. Scudera, D. Skorina, M. Yahdi.

***Library Subcommittee**

Membership: C. Jamison (Ch), D. Hemphill, H. O'Neill, A. Price, B. Jaroff

**The Membership Of These Subcommittees Is Appointed By Academic Support And The Membership List May Not Be Complete.*

Appeals

Membership: 3 Administrators, Edwards (Ss '09), Hemphill (H '08), Wailgum (S '10).
Alternates: Czubaroff (Ss '07), Borsdorf (S '08), Doughty (H '08)

Buildings And Grounds

Membership: Board Members, Strassburger, Feick, Rice, Nolan, Guilmette, [French ('09)] Ellison To Replace French In Spring 2008, Scranton ('10).

Campus Planning And Priorities

Membership: Strassburger, Difelicianantonio, Levy, Guilmette, Rice, Lucas, [Lobo (S '08)] Bailey To Replace Lobo Fall 2007, Florka (H '10), Dole (At Lg. '08), Stern (Ss '09), Yahdi (At Lg. '10), Sage Corwin, Alex Wang.

Diversity

Membership: Patton, Rice, Greason ('08), Shuru ('09), Mizenko ('09), Sharlene Brown, Donnie Lambert.

Enrollment

Membership: Difelicianantonio, Guilmette, Sparrow, Goddard, Gallagher (Ss '08), Price (S '09). [Gaines (At Lg. '09)] Greason To Replace Gaines Fall 2007, Rein (H '10).

Faculty Affairs

Membership: Strassburger, Guilmette, Levy, Dacosta (Ss '08), [Clark (H '09)] Novack To Replace Clark In Fall 2007, Goebeler (S '10).

Faculty Development

Membership: Levy, Principe (Ss '08), Williamsen (At Lg. '08), Liston (S '09), [Kozusko (H '10)] Nixon To Replace Kozusko Spring 2008, Rein (At Lg. '10).

Governance

Membership: De Arana (H '08), [Kontostathis (S '08)] Roberts To Replace Kontostathis Spring 2008, Dacosta (Ss '08), Jaroff (H '09), Sidie (S '09), [Mudd (Ss, '09)] Goodman To Replace Mudd Fall 2007, Riley (S '10), Mill (H '10), Hudson (Ss '10),

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Graduate And Professional Education

Membership: Price, Weight, Lyczak (S '08), Keita (H '09), Woodstock (Ss '10), Fabian Lemp, Maria Dennard, Katie Morello..

Intercollegiate Athletics

Membership: Thomas, O'Neill, Fitzgerald, Bailey ('08), [Cirka ('09)] Bish To Replace Cirka Spring 2008, Goetz ('10), Evan Yeckley, Harris Papas, Jill Alspach, Natalie Rosenberg, Kelly Becker, Ali Nolan..

International Education Committee

Membership: Lucas, Hardin, Melrose, [Lionarons] R. King To Replace Lionarons Fall 2007, Mizenko (H '08), [Kohn (S '09)] Borsdorf To Replace Kohn Fall 2007, Evans (Ss '10), Jamie Beckford, Serena Mithbaakar..

Judiciary Board

Membership: Edwards, Stern ('08), Wailgum ('09), [R. Dawley ('10)] Tortorelli To Replace Dawley Spring 2008, Alex Peay, Rich Kiselowski, Tarah Pearson..

Alternates: Rideout ('08), [Sorensen ('08)] Berman To Replace Sorensen Spring 2008, O'Neill ('09), Goebeler ('10), Shifrin ('10), Rob Ellison, Shakeeta Parker, Mark Smedberg, Amber Adkins, Stephanie Schleidt.

Outcomes Assessment

Membership: Lucas, Davidson, Rinde, Goddard (S '08), De Arana (H '09), Economopoulos (Ss '10), Allison Injaian, Fabrian Lemp.

Promotion And Tenure

Membership: Strassburger, Levy, [E. Dawley (S '08)] Fields To Replace Dawley Spring 2008, [Lionarons (H '09)] Schroeder To Replace Lionarons Fall 2007, Hood (Ss '10), Hemphill (At Lg. '10).

Student Activities And Services

Membership: Nolan, Larson, Van Gilder, Skorina ('08), [Aiken ('08)] Jaroff To Replace Aiken Fall 2007, Redman ('09), Julie Tran, Ashley Drogalis, Greg Little, Amber Hyppolite, Jeremiah Long, Matt Zuber.

Ad Hoc Committees

Ad Hoc Faculty Committee On Evaluation Of The SPTQ

Rein, Goebeler, Principe, King, Coleman, Economopoulos

Freshman Advisers 2008-2009

Chris Akin	Stew Goetz	Melody Nixon
Beth Bailey	Sheryl Goodman	Frances Novack
Leah Berman	Walter Greason	Regina Oboler
Cindy Biel	Melissa Hardin	Codrina Popescu
Joel Bish	Cindy Harris	Gabrielle Principe
Laura Borsdorf	Dallett Hemphill	Nick Principe
Stephen Bowers	Ron Hess	Beverly Redman
Thomas Carroll	Garrick Imatani	Carla Rinde
Catherine Chambliss	Charlie Jamison	Rebecca Roberts
Hugh Clark	Rebecca Jaroff	Greg Scranton
Roger Coleman	Leah Joseph	Susan Shifrin
Jeanine Czubaroff	Houghton Kane	Jim Sidie
Kneia DaCosta	Michelle Keita	Diane Skorina
Robert Davidson	Beth Kessler	Kelly Sorensen
Ellen Dawley	Rebecca Kohn	John Spencer
Robert Dawley	April Kontostathis	Giovanna Steyaert
Carol Dole	Nina LaTassa	Victor Tortorelli
Ross Doughty	Jan Levensgood	Jennifer van Gilder
Andrew Economopoulos	Joyce Lionarons	Barbara von Schlegell
Mark Ellison	Richard Liston	Tina Wailgum
Lynne Edwards	Anthony Lobo	Rosemarie Wait
Del Engstrom	Rebecca Lyczak	Richard Wallace
Rebecca Evans	Jonathan Marks	Greg Weight
Gerard Fitzpatrick	Ellen Matthews	Gordon Williams
John French	Joe Melrose	Eric Williamsen
Holly Gaines	David Mill	Louise Woodstock
Kerry Gibson	Shannon Mudd	Mohammed Yahdi
Kate Goddard	Doug Nagy	
Tom Goebeler	Jeff Neslen	

Academic Department Chairs and Program Directors for 2008-2009

Advisers will be assigned by the chairperson or coordinator of the student's major. They are:

African American and Africana Studies: Professor Greason
 American Studies: Professor Schroeder
 Anthropology and Sociology: Professor Gallagher
 Art: Professor Miller
 Biochemistry and Molecular Biology: Professor Roberts
 Biology: Professor Small
 Business and Economics: Professor Economopoulos
 Chemistry: Professor Hess
 Classics: Professor Wickersham
 East Asian Studies: Professor Clark
 Education: Professor Engstrom
 English: Professor Dole
 Environmental Studies: Professor Wallace
 Exercise and Sport Science: Professor Engstrom
 Gender and Women's Studies: Professor Evans
 History: Professor Doughty
 International Relations: Professor Melrose

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Mathematics and Computer Science: Professor Coleman
Media and Communication Studies: Professor Czubaroff
Modern Languages: Professor Mizenko
Music: Professor French
Neuroscience: Professor Bish
Philosophy and Religion: Professor Goetz
Physics: Professor Nagy
Politics: Professor Stern
Psychology: Professor Chambliss
Theater and Dance: Professor Scudera

Pre-Professional Advisers 2008-2009

Education: Professor Engstrom
Law: Professor Kane
Engineering: Professor Cellucci
Medicine: Professor Bailey
Theology: Rev. Rice

Class Advisers

Class of 2012: *To be designated*
Class of 2011: Professor E. Dawley
Class of 2010: Professor Coleman
Class of 2009: Professor Wailgum

Alumni Council 2008-2009

<i>Office</i>	<i>Name</i>	<i>Class Year</i>
President	Gillian Murray	1989
Past President	Maria Woytek	1992
Members-at-large		
	Lillian Benedict	1989
	K. Lindsay Kneas,	1970
	Patti Yoder Dietrich	1987
	John Cicchetti	2004
	Sarah Fielding Nemitz	1998
	John Dunchick	1995
	Bill Gotwals	1969
	John Fessick	1985
	Kim Hoover	1999
	Jeffrey Karpinski	1970
	Glenn Scharf	1986
	Adam Sager	1990

Commencement Awards 2007

The ACM Prize for Service and Excellence in Computer Science: Paul C. Kroon, '08

Established in 2006 to recognize excellence in computer science and service to the Student Chapter of the Association for Computing Machinery or to the department.

The Alumni Senior Award: Katherine Teresa Ringler, '07;

Derek Joseph Zimmer, '07

Presented by the Alumni Association of Ursinus College to one man and one woman of the graduating class in recognition of leadership qualities demonstrated during their undergraduate years.

The American Chemical Society Award: Jonathan M. Darmon, '07

Awarded annually to the student who has made the most significant advance in his or her study of chemistry.

The American Chemical Society Award in Analytical Chemistry: Ewa M. Siedlecka, '08

Awarded to a junior displaying an aptitude for a career in analytical chemistry. This award is sponsored by the Analytical Chemistry Division of the American Chemical Society.

The American Institute of Chemists Award: Alexander Jack Frey, '07

Awarded to the senior chemistry major who has demonstrated potential for advancement in the chemical professions.

The Cyrus E. Beekey Prize: Kevin Michael Curl, '07; Kari Deann Sears, '07

Endowed by Viola Sweigart Beekey, '29, and her son, Cyrus E. Beekey Jr., '64, and awarded to a senior who has been an outstanding premedical student.

The Frederick M. Binder Award: Jeffrey Edward Teigler, '07

Established to honor the memory of Dr. Frederick M. Binder, 1942, whose long and distinguished career exemplified Ursinus College at its very best. To be awarded to a graduating senior who, in the judgement of the faculty, offers greatest promise of high academic and professional achievement.

The Biology Teaching Assistant Award: Derek Joseph Zimmer, '07

Awarded to an outstanding biology laboratory teaching assistant.

The Boeshore Prize: Bridget Taylor, '08

Presented for excellence in the study of Greek.

Chemistry Laboratory Technique Award: Jason Stanley Silverman, '07

Presented to the student exhibiting the best laboratory technique.

The Compton/Rose Prize: Allison Jane Guerin, '07

Established by Barbara Rose Compton, 1969, and Robert L. Compton, Jr., 1968, in honor of their parents, Mrs. Eileen K. Rose and Mr. and Mrs. Robert L. Compton, Sr., and in memory of the late Wilbur B. Rose. Awarded to an outstanding student majoring in economics and business administration.

The CRC Press Freshman Chemistry Achievement Award: Jennifer W. Heavener, '10

Awarded annually, by the Chemical Rubber Company Press, to the freshman achieving the highest academic average in chemistry.

The Alfred L. Creager, '33, Prize: Rachel E. Heller, '08

Established by Ray Hamilton, '57, and awarded annually to the student who contributes the best work, either fiction or nonfiction, to a campus publication.

The Cub and Key Prize: Michael J. Cafarchio, '10; Ryan J. Collins, '10;
David M. Darmon, '10; Aakash Kaushik Shah, '10; Jason J. Zerbe, '10

Awarded annually to the male student who at the end of the first term has the highest scholastic standing.

The J. Douglas Davis Prize: Laura Ann Blauch, '07

Established by Ray Hamilton, '57, the income to be awarded annually to an outstanding student in history.

The Louis A. DeCatur Prize: Maureen Terese McCarthy, '07

Established in 2000 by faculty colleagues and former students to honor the thirty-year teaching career at Ursinus of Professor Louis Aubrey DeCatur and awarded to an outstanding English major for excellence in the study of language and literature.

The George Ditter Prize: Caitlin Victoria Harris, '07

Awarded each year to the graduating senior whose work in history and political science most promises the perpetuation of democratic self-government. The prize was established by J. William Ditter in memory of his father and is continued through the generosity of J. William Ditter Jr., '43.

The Geoffrey Dolman Prize in Creative Writing: Maureen Terese McCarthy, '07

Created in 1996 in memory of Geoffrey Dolman, the prize to be awarded to a student who demonstrates proficiency in creative writing.

The Ehret Prize: William Francis Furey, '07; Jessica Lynn Furman, '07;

Mallory Rachel Greene, '07; Thomas Albert Herrmann, Jr., '07

Established by bequest of The Reverend Harry J. Ehret in honor of his son, Robley W. Ehret, '39, and awarded each year to a student who has excelled in athletics.

The Excellence in Teaching Award: Melissa June George, '07

Presented to undergraduate students who have demonstrated excellence during their student teaching experience, exhibited commitment to educational research, and shown quality academic performance in coursework at Ursinus College.

The Excellence in Dance Award: Brett M. Kuras, '08

Awarded in recognition of outstanding contributions to the dance program in the areas of scholarship, research and/or performance.

Exercise and Sport Science Outstanding Young Professional: Jessica Meghan Rogers, '07

Awarded to an Exercise and Sport Science major who has actively engaged in service and leadership within the department.

Exercise and Sport Science Scholar Award: Marissa Emilia Koslov, '07

Awarded to an Exercise and Sport Science major who has earned the highest overall cumulative GPA at Ursinus College.

The Faculty Prize in Biology: Jenny Lynn Kerschner, '07; Stephen Anthony Ordog, Jr. '07; Joseph J. Santora, '08; Laura E. Seczech, '09

Awarded to an outstanding biology or biochemistry molecular biology major in each class.

The Faculty Prize in Mathematics: Jason David Knapp, '07

Established in 1989 by the faculty of the Department of Mathematics and Computer Science and awarded to an outstanding mathematics student.

The Faculty Prize for a Promising Sophomore in Computer Science: Scott A. Kulp, '09

Established in 2006 by the faculty of the Department of Mathematics and Computer Science and awarded to a promising sophomore in computer science.

The Faculty Prize for a Promising Sophomore in Mathematics: Justin L. Sachs, '09

Established in 2006 by the faculty of the Department of Mathematics and Computer Science and awarded to a promising sophomore in mathematics.

The Faculty Prize for an Outstanding Student Pursuing Teacher Certification in Mathematics: Timothy Paul Seibert, '07; Jessica Lynn Furman, '07

Established in 2006 by the faculty of the Department of Mathematics and Computer Science and awarded to an outstanding student pursuing teacher certification in mathematics.

The Professor George C. Fago Prize: Alaina Marie Cara, '07

Endowed by George Bause, 1977, to award to a graduating psychology major who has excellent scholarship in psychology and acceptance to a graduate school of social work, criminology or criminal justice.

The Philip H. Fogel Memorial Prize: Caitlin Holmes O'Connor, '07

Endowed by Mrs. Edwin J. Fogel in memory of her son, and awarded each year to the member of the senior class who has done the best work in the Department of Religion.

The French Award: Cynthia Dawn Shimer, '07

Established in 1976 by Dr. Albert L. Reiner, former chairman of Romance Languages, to honor an outstanding student in French.

The German Award: Caitlin Phillips Cleary, '07

Given by the Modern Languages Department to honor an outstanding student in German.

The Thomas P. and Frances T. Glassmoyer Scholastic Award: Kevin Michael Curl, '07

Awarded annually to the member of the graduating class with the highest scholastic average for four years at Ursinus.

The Olive Sargeant Hamm Award: Maureen Terese McCarthy, '07

Established in 1998 by Olive S. Hamm, Class of 1929, the first recipient of the "All Around Award" for the senior woman who exemplifies "the best in college life- athletically, socially and scholastically."

The Robin Blood Harris, '56, Memorial Prize: Julia Evelyn Lickfield, '07

Established by her family and friends for the senior woman who exemplifies those outstanding qualities of leadership and scholarship that characterized Robin's association with Ursinus.

The Horioka Latin Prize: Kevin Michael Curl, '07

Established in 1993 by Margaret A. Horioka, '77, and awarded to a graduating senior who has excelled in Latin.

The Japanese Award: Michael James Levchuk, '07; Christina Marie Spiker, '07

Given by the Modern Language department to honor an outstanding student in Japanese.

The Ronald C. Kichline Prize: Mark James Barber, Jr. '07; Mary Kate Daley, '07;

Allison Noelle Douth, '07; Lauren Elizabeth Washam, '07

Awarded annually to a senior who has excelled in athletics.

The Jan Lawrence Lange Award: Charles E. Weyhmiller, '07

To the graduating senior who best exemplifies pursuit of knowledge and diligence in lifelong learning.

The Laughlin Award: Kari Deann Sears, '07; Brandon Christopher Peer, '07

Endowed by Henry P. Laughlin, M.D., '38, for the student who has made outstanding contributions to his or her class and to the college.

The William L. Lettinger Chemistry Award: James Butler Wittenberg, '07

Endowed by his wife, Sharon B. Lettinger, '66, in memory of William L. Lettinger, '65, and awarded annually to a member of the senior class who has demonstrated promise for graduate studies in the field of chemistry.

Library Director's Award: Megan Elizabeth Jamison, '07

The Library Director's Award is given to a senior library student assistant who possesses strong leadership qualities and a serious commitment to the Ursinus College library program.

The MAA Prize for Service and Excellence in Mathematics: Lynne Ann Erickson, '07

Established in 2006 to recognize excellence in mathematics and service to the Student Chapter of the Mathematical Association of America or to the department.

The Elizabeth Rockefeller McCain Prize: Katherine Le Cours, '09

Endowed by the late George Nox McCain and awarded annually to the student who at the end of the sophomore year has shown the greatest ability in the use of the English language as evidenced by work in composition and literature.

The Linda L. McIntyre Award: Kaitlyn G. Sutherland, '09

Established in honor of Linda L. McIntyre, '68, and presented to a sophomore woman who demonstrates initiative in financing her education, proficiency and perseverance in intercollegiate athletics and a cooperative and unselfish attitude in women's sports.

The Merck Index Award: Parascevi Giavis, '07

For the outstanding preprofessional candidate who is a chemistry major.

The Professor Eugene H. Miller Prize: Katherine Teresa Ringler, '07

Endowed by the Honorable Hermann Frederick Eilts, '43, and awarded annually for the best essay on a subject in political science.

The Jessie Ashworth Miller Prize: Shannon Marie Santillo-Herbert, '07

Established by Ray Hamilton, '57, the income to be awarded annually to an outstanding student of anthropology and sociology.

The Wayne F. Millward, '57, Memorial Prize: Lindsay Elizabeth Nicolo, '07

For excellence in the theatre program, established in 1988 by Ray Hamilton, '57, the income to be awarded annually to the student who contributes the most to Ursinus' theatre program.

The Mary Onopchenko, '85, Memorial Prize: Tyler David Johnson, '07

The Mary Onopchenko, '85, Memorial Prize, established in loving memory of Mary by her family and friends, to be awarded to an outstanding senior who plans a career in law.

The Outstanding Achievement Award in Organic Chemistry: Bonnie M. Kaas, '08

This award recognizes undergraduate students for exemplary performance in the full year organic chemistry course sequence. The award is sponsored by POLYED, the Joint Education Committee of the American Chemical Society Divisions of Polymer Chemistry and Polymeric materials.

The Outstanding Biology Research Award: Monica Jane Crary, '07;

Michelle Diane Heayn, '07; Tyler Evan Schartel, '07

Awarded to an outstanding research student in biological science.

The Paisley Prize: Sarah Elizabeth Keck, '07

Awarded for the best dissertation by a member of the senior class on an assigned topic involving the thoughtful application of the principles of Christianity to the problems of practical life.

The Parsons Prize: Markus Sebastian Weise, '07

Awarded annually to an outstanding student of American history. This prize was established by Ray Hamilton, '57, in memory of William T. Parsons, '47, professor of history.

The Pennsylvania Institute of Certified Public Accountants Prize: Melissa Christine Dunn, '07

Presented to the outstanding senior in accounting.

The Peters Prize: Thomas Mead Richter, '07
Awarded annually for excellence in the study of the Bible.

Professor William J. Phillips Prize: S. Richelle Sowa, '08
Awarded annually to the Bachelor of Business Administration degree candidate who completes the equivalent of the junior year with the highest cumulative average.

The Margot and Richard P. Richter Prize: Kerri Lynn Landis, '07
Established in 2003 by faculty members and friends in celebration of the 50th wedding anniversary of the college's tenth president and his spouse, to be awarded to a student who demonstrates excellence in both English and Music.

The Miriam and Irving N. Rosenthal Memorial Award: Jamie K. Doperak, '08
Established in 1989 by the gift of Professor William E. Rosenthal to commemorate in perpetuity his beloved parents, who instilled in him a sense of the intrinsic value of lifelong learning. To be awarded to a female rising senior who has clearly demonstrated an interest in pursuing graduate study in the mathematical sciences.

The W.W. Smith Prize: Brittany Lynn Bell, '07; Jenny Lynn Kerschmer, '07
Awarded by the W.W. Smith Charitable Trust of West Conshohocken, Pennsylvania, to seniors with superior academic records who previously won W.W. Smith Scholar financial grants.

The Professor Evan S. Snyder Prize: Darren Craig McGlinchey, '07
Endowed by George Bause, 1977, to award to a senior who has demonstrated excellent scholarship in physics.

The Spanish Award: Jocabed Ortiz, '07
Given by the Modern Language Department to honor an outstanding student in Spanish.

The Tau of Pennsylvania Chapter of Phi Beta Kappa Sophomore Award: Nina Casella, '09
Awarded annually to the sophomore with the leading grade point average and diversity of interests that represent the tenets of election to Phi Beta Kappa.
Robert Trucksess Prize: Victoria Jean Langton, '07
Awarded annually to a student in the senior class who plans to study law and who shows unusual promise.

The Teresa L. Urban Leadership Award: Amanda Mary D'Amico, '07
Awarded annually by the USGA to a senior in recognition for outstanding leadership.

The Wagman Prize: Kate Elizabeth Rettstadt, '07; Shelby St. John Cochran, '07
Awarded annually by Mr. and Mrs. Morris M. Wagman in memory of their son, Dr. Sidney Louis Wagman, '51, to an outstanding and deserving student who has demonstrated loyalty to high ideals.

Wall Street Journal Award: Michael Lawrence Antonelli, '07
Presented to the outstanding senior in business and economics.

The Professor Elizabeth B. White Award: Jennifer Frances Kosmin, '07
Endowed by the Honorable Hermann Frederick Eilts, '43, and awarded annually for the best essay on a subject in history.

The Whittian Prize: Katherine M. Blair, '10; Abbie R. Cichowski, '10; Caitlin M. Cook, '10; Nicole A. Dillie, '10;

Ursinus Recipients of Fellowships and Scholarships

<i>The Fulbright U.S. Student Program Fellowship:</i>	Jeffrey Edward Teigler, '07
<i>The Kemper Scholarship:</i>	Lori A. Kuttler, '10
<i>The PennACE/JoAnne Day Award:</i>	Katherine Teresa Ringle, '07
<i>The Morris K. Udall Scholarship:</i>	Carolyn M. Vogt, '08
<i>The Watson Fellowship</i>	Katherine Teresa Ringle, '07
<i>The Watson Fellowship</i>	Markus Sebastian Weise, '07

Class of 2007 Officers

President	Mikala Keisha Pacifique
Vice President	Louis Anthony DeMark
Secretary	Janine Michelle Herring
Treasurer	Patrick Brennan Waldron
Class Adviser	Jon Volkmer

Commencement Honors 2007

Valedictorian

Kevin Michael Curl

Salutatorian

Jennifer Frances Kosmin

Summa Cum Laude

Michael Lawrence Antonelli	Melissa June George	Maureen Terese McCarthy
Laura Ann Blanch	Allison Jane Guerin	Carrie Ann O' Connor
Alaina Marie Cara	Amy Faith Guminski	Donna Regina Pierson
Stephanie Marie Cieslak	Benjamin Thomas Hedrick	Katherine Teresa Ringler
Kevin Michael Curl	Jenny Lynn Kerschner	Shannon Marie Santillo-Herbert
Jonathan M. Darmon	Jennifer Frances Kosmin	Cynthia Dawn Shimer
Melissa Christine Dunn	Tadeusz Victor Kroll	Trevor Alexander Strunk
Delali Dzordzorme	Jayne Marie Kunaszuk	Jeffrey Edward Teigler
Erin Renee Eastlack	Kerri Lynn Landis	Sarah Elizabeth Weddle
Jessica Lynn Furman	Kenneth Marks, Jr.	Christopher Lawrence Welle

Magna Cum Laude

Jonathan Samuel Bronson	Caitlin Deneen Hanlon	Doren Lane Peterson
Amanda Beth Bryman	Michelle Diane Heayn	Kate Elizabeth Rettstadt
Edward Thomas Butkovitz	Tyler David Johnson	Kari Deann Sears
Virginia H. Care	Brian James Keeley	Jason Stanley Silverman
Kristin Hope Carter	Jonathan Patrick Kieran	Nicholas Micah Smart Coulter
Renee Marie Caserta	Victoria Jean Langton	Tracey Lynne Spack
Caitlin Phillips Cleary	Julia Evelyn Lickfield	Christina Marie Spiker
Shelby St. John Cochran	Valentina Maria LoPiccolo	Brian M. Swiderski
Katherine Anne Conner	Emily Marie Malinowski	Justin Anthony Traino
Alexander Jack Frey	Mark William McCormack	Markus Sebastian Weise
Jonathan Carl Gagas	Melinda Kathleen Molan	Charles E. Weyhmiller
Kirsten M. Gambone	Lisa R. Nagle	Aimee Muller Wright
Antoinette Jo Gardner	Caitlin Holmes O'Connor	
Lauren Elizabeth Gibson	Erin Ashley Padovani	

Cum Laude

Jordan Arena	Christopher DeJoseph	Thomas Albert Herrmann, Jr.
Armen Mihan Bakalian	John Patrick Dunne	Travis Scott High
Caroline Elisabeth Boyer	Adam John Ebling	Megan Elizabeth Jamison
Krista Ashley Bradley	Ian David Eglinton-Woods	Erica Leigh Kehler
Kristen Leigh Brown	Lynne Ann Erickson	Brian Charles Kennedy
Elsa Lynn Budzowski	Jenna Noelle Filipkowski	Jason David Knapp
Sara Jean Campbell	Jayne Michelle Frazier	Marissa Emilia Koslov
Eileen M. Censullo	Joshua Michael Frear	Joshua Elliot Krill
Jan Michelle Cohen	Lisa Irmina Gilardi	Emily Anne Landgraf-Kimball
Amanda Mary D'Amico	Emily Caroline Godfrey	Corinne N. Licchetto
Laura Rose Davis	Abby Elise Hare	Andrea Christine Mack
Justin James DeAngelis	Janine Michelle Herring	Kelly Anne Magnin

Sara Lynn Marshall
Colin Thomas McDermott
Blaine Thomas McEvoy
Darren Craig McGlinchey
Katelyn Marie McMahon
Alexander John Miron
Jeffrey Keith Monk
Stephen Anthony Ordog, Jr.

Jocabed Ortiz
Lori L. Paul
Lauren Anne Rees
Jessica Meghan Rogers
Christina Marjorie Rosci
Tyler Evan Schartel
Sara Lynn Schubel
Timothy Paul Seibert

Timothy James Smith
Christina Marie Stephenson
Sean Christopher Tillman
Joseph Bailey Turner
Nathaniel Hearst Wagner
Karen Patricia Wendler
Dina Elise Yarmus

Departmental Honors 2007

** Distinguished Honors*

Anthropology: Shannon Marie Santillo-Herbert

Biochemistry and Molecular Biology: Laura Rose Davis, Amy Faith Guminski*, Abby Elise Hare, Jenny Lynn Kerschner, Jason Stanley Silverman, Jeffrey Edward Teigler

Biology: Christopher DeJoseph, Michelle Diane Heayn*, Ryan Matthew Lenhart*, Sara Lynn Marshall, Colin Thomas McDermott, Tyler Evan Schartel

Biology and Classics: Kevin Michael Curl

Business & Economics: Michael Lawrence Antonelli, Melissa Christine Dunn, Allison Jane Guerin, Alexander John Miron, Justin Anthony Traino

Business & Economics and English: Tyler David Johnson

Chemistry: Jonathan Michael Darmon, Alexander Jack Frey

East Asian Studies: Armen Mihran Bakalian, Tadeusz Victor Kroll, Christina Marie Spiker

Education: Jessica Lynn Furman

Education and Psychology: Caroline Elisabeth Boyer, Carrie Ann O'Connor*

English: Jonathan Carl Gagas, Maureen Terese McCarthy*, Trevor Alexander Strunk

Environmental Studies: Marguerite Ann Porrini, Jenna Leigh Tomiello

French: Cynthia Dawn Shimer, Dina Elise Yarmus

German: Caitlin Phillips Cleary

History: Laura Ann Blauch, Jennifer Frances Kosmin*, Markus Sebastian Weise

International Relations: Amanda Mary D'Amico*, Emily Caroline Godfrey*, Brian James Keeley, Emily Anne Landgraf-Kimball, Sean Christopher Tillman

International Relations and Latin American Studies: Travis Scott High*

Mathematics: Lynne Ann Erickson*

Media & Communication Studies: Sarah Elizabeth Weddle

Peace and Justice Studies: Katherine Teresa Ringler*

Philosophy: Jonathan Patrick Kieran

Physics: Darren Craig McGlinchey*

Politics: Michael Theodore Wells

Psychology: Shelby St. John Cochran, Jenna Noelle Filipkowski, Lauren Elizabeth Gibson

Spanish: Jocabed Ortiz

College Honors

Phi Beta Kappa

Tau of Pennsylvania Chapter

Michael Lawrence Antonelli, '07
 Laura Ann Blanch, '07
 Jonathan Samuel Bronson, '07
 Amanda Beth Bryman, '07
 Stephen Paul Buss, '08**
 Stephanie Marie Cieslak, '07
 Caitlin Phillips Cleary, '07
 Shelby St. John Cochran, '07
 Katherine Anne Conner, '07
 Kevin Michael Curl, '07*
 Jonathan M. Darnon, '07
 Melissa Christine Dunn, '07
 Erin Renee Eastlack, '07
 Joshua Douglas Eikenberg, '08**
 Alexander Jack Frey, '07
 Jessica Lynn Furman, '07
 Jonathan Carl Gagas, '07
 Melissa June George, '07

Allison Jane Guerin, '07*
 Amy Faith Guminski, '07*
 Caitlin Deneen Hanlon, '07
 Michelle Diane Heayn, '07
 Jenny Lynn Kerschner, '07
 Jonathan Patrick Kieran, '07
 Jennifer Frances Kosmin, '07
 Tadeusz Victor Kroll, '07
 Jayne Marie Kunaszuk, '07
 Kerri Lynn Landis, '07*
 Victoria Jean Langton, '07
 Maureen Terese McCarthy, '07*
 Carrie Ann O'Connor, '07
 Kate Elizabeth Rettstadt, '07
 Katherine Teresa Ringler, '07
 Shannon Marie Santillo-Herbert, '07
 Joseph James Santora, Jr. '08**
 Kari Deann Sears, '07

Cynthia Dawn Shimer, '07
 Jason Stanley Silverman, '07
 Trevor Alexander Strunk, '07
 Jeffrey Edward Teigler, '07*
 Carolyn Marie Vogt, '08**
 Sarah Elizabeth Weddle, '07
 Markus Sebastian Weise, '07
 Christopher Lawrence Weller, '07

*Currently Seniors, Elected as juniors

**Currently Juniors

Members of Phi Beta Kappa are wearing ribbons on their graduation regalia.

Cub and Key

Stephen Paul Buss, '08
 David S. Chamberlain, '08
 Sage C. Corwin, '08
 Christopher R. Curley, '08
 Matthew E. Flyntz, '08
 James Garner, '06
 Thomas Albert Herrmann, Jr. '07
 Joseph R. Joyce, '08
 Jonathan Patrick Kieran, '07
 Jason David Knapp, '07

Dereck Lafontant, '08
 Colin Thomas McDermott, '07
 Blaine Thomas McEvoy, '07
 Darren Craig McGlinchey, '07
 Andrew D. Miller, '08
 Alexander John Miron, '07
 Alexander I. Morris, '08
 Mark R. Robidoux, '08
 Tyler Evan Schartel, '07
 David Adam Shack, '07

James P. Sproule, '08
 Julian D. Stine, '08
 Trevor Alexander Strunk, '07
 Jeffrey Edward Teigler, '07
 Zachary T. Tompkins, '08
 Nathaniel Hearst Wagner, '07
 Markus Sebastian Weise, '07
 Derek Joseph Zimmer, '07

Whitians

Amber R. Adkins, '08
 Julie A. Balko, '08
 Gina M. Barbieri, '08
 Brittany Lynn Bell, '07
 Alina M. Bishop, '08
 Caroline Elisabeth Boyer, '07
 Sara Jean Campbell, '07
 Stephanie Marie Cieslak, '07
 Amanda Mary D'Amico, '07
 Laura Rose Davis, '07
 Alissa M. Doberczak, '08
 Emily L. Files, '08
 Jessica Lynn Furman, '07

Antoinette Jo Gardner, '07
 Alexandra A. Gaustad, '08
 Laura A. Glace, '08
 Menaka Sukumaran Gopalan, '07
 Caitlin Deneen Hanlon, '07
 Megan L. Helzner, '08
 Janine Michelle Herring, '07
 Sarah Elizabeth Keck, '07
 Victoria Jean Langton, '07
 Julia Evelyn Lickfield, '07
 Amy J. Lynch, '08
 Marisa Meana, '08

Erin M. Pollard, '08
 Katherine Teresa Ringler, '07
 Jessica Meghan Rogers, '07
 Kari Deann Sears, '07
 Ewa M. Siedlecka, '08
 Allison C. Stouch, '08
 Heather M. Turnbach, '08
 Carolyn M. Vogt, '08
 Amanda Katherine Wellbaum, '07
 Anastasia B. Wohar, '08
 Dina Elise Yarmus, '07

Graduates of 2007

Bachelor of Business Administration

Audrey L. Faust '06
Tina M. Gottshall
Robert G. Limper'06

Jaclyn Russo Miley
Patricia E. Miller

Rita M. Sasse '06
MaryLou Washko '06

Bachelor of Business Administration

Jessica Bishop
Krista Ashley Bradley
Virginia H. Care
Renee Marie Caserta
Michella Lee DiVitanonio
Delali Dzordzorme
Ann S. Engel '06
Mark Fedak
James E. Fisher
Jessica Ripley Gollette

Benjamin Thomas Hedrick
Edwin D. Hunt
Allison Denise Kerns
Christina B. Maguire
Kenneth Marks, Jr.
Mark William McCormack
Michael Paul McMahon
Lisa R. Nagle
Lori L. Paul
Donna Regina Pierson

Joanne Romano
Carolyn Marie Sgrignoli
Shirley F. Shea '06
Matthew A. Steckiel
Brian M. Swiderski
Christopher Paul Tansey
John L. Washeleski
Charles E. Weyhmiller
Mark Andrew Williams

Bachelor of Arts

Benjamin John Allman
Michael Lawrence Antonelli
Armen Mihran Bakalian
Tara Colleen Baker
Mark James Barber, Jr.
Ashley Lauren Basla
Stefanie Adele Bastinck
Brittany Lynn Bell
Ashley Nicole Bender
Corinne Elyse Beyers
Kaustuv Bhattacharya
Nicolas Evan Birnbaum
Katherine Greene Blanchard
Laura Ann Blanch
Michael Paul Bongarzone
Nikita Alexei Borovik
Kyle John Borreggine
Samuel Lee Brody
Jonathan Samuel Bronson
Brandon John-Paul Brown
Kristen Leigh Brown
Amanda Beth Bryman
Melissa Lee Buckley
Elsa Lynn Budzowski
David Martin Burns, Jr.
Gregory Royce Butters
Daniel Wilt Callahan
Sara Jean Campbell
James Joseph Cannon, III
Demian Sunil Canosa
Kristin Hope Carter
Robert George Caruso
Felicia Chou
Cameron Kendall Clark
Caitlin Phillips Cleary
Zachary Thomas Coale
Jan Michelle Cohen
Rebecca Morgan Cohen
Darrell Anton Collins
Jason Michael Comcovich

Daniel James Concannon
Michael Patrick Curran
Mary Kate Daley
Amanda Mary D'Amico
Katelynd D'Andrea
Lauren Davila
Justin James DeAngelis
Christopher Lorenzo DeLeon
Claire Juliette Marie de Rosen
Melina Ann DiSanto
Sean Patrick Donahoe
Ashia Nicole Downing
Melissa Christine Dunn
John Patrick Dunne
Matthew Adam Duppel
Erin Renee Eastlack
Robert W. Ebling
Stephen Patrick Edelman, II
Courtney Anne Egan
Ian David Eglinton-Woods
Kathleen Caroline Emberger
William Frederick Eppler, III
Terrence P. Farley '63
Tracey Coretta Ferdinand
James Jordan Foehrenbach
Jayme Michelle Frazier
William Francis Furey
Jonathan Carl Gagas
Evan Michael Gallo
John J. Gantner
Antoinette Jo Gardner
Michael Reese Gibson
Lindsay E. Givens
Emily Caroline Godfrey
Menaka Sukumaran Gopalan
Kieran Joseph Gorman
Kristin Rachelle Gorman
Michael Anthony Graham, Jr. '06
Samuel George Greenfield
Mark Vincent Greim

Allison Jane Guerin
Joshua Taylor Hannum
Myles Joseph Hannigan '06
Caitlin Victoria Harris
Janine Michelle Herring
Thomas Albert Herrmann, Jr.
Travis Scott High
Amber Gail Howard '06
Benjamin R. Isser
Megan Elizabeth Jamison
Tyler David Johnson
Matthew Sheehan Jost
Casey Lynn Joy
Sarah Elizabeth Keck
Brian James Keeley
Robert Raymond Kelly, '61
Brian Donald Kennedy
Caitlyn Jence Kennedy
Heather Ann Kennedy
David Charles Kiefer, Jr.
Jonathan Patrick Kieran
Timothy Gehret Killeen
SoRi Kim
Paige Eilis Kinsella
Jennifer Frances Kosmin
Aaron Michael Koumaras
Joshua Elliot Krill
Matthew Ryan Krolkowski
Tadeusz Victor Kroll
David Evan Kuptsow
Paul Edmund LaFountain, III
Daniel Edward Lamson
Emily Anne Landgraf-Kimball
Kerri Lynn Landis
Victoria Jean Langton
Dominick George Lee, II
Michael James Levchuk
Corinne N. Licchetto
Michael Barry Lichtenstein
Julia Evelyn Lickfield

URSINUS COLLEGE CATALOGUE

Adam M. Longino
Walter Anthony Lucas
Caitlin Marie Maddox
Jeanine Ariane Mahle
Emily Marie Malinowski
George Rodriguez Manalo, Jr.
David Joseph Marcheskie, Jr.
Colm James McCarthy
Maureen Terese McCarthy
Rachel Beth McDonough
Blaine Thomas McEvoy
Caroline Elizabeth Meiers
Henry Clay Miller
Jeffrey Paul Milligan
Alexander John Miron
Courtney Nicole Moser
Thomas Charles Moulder, Jr.
Patrick John Mulhern
Lindsay Elizabeth Nicolò
Ryan Jeffrey Norris
Caitlin Holmes O'Connor
Matthew Charles Orlando
Jocabed Ortiz
Amanda Emiko Ose
Erin Ashley Padovani
Matthew Kenneth Pastor
Daniela Paul
Andrew Meadows Pepin
Katherine Windsor Perkins
Doren Lane Peterson

Ryan Patrick Peterson
Jonathan Peter Pometto
Marguerite Ann Porrini
Anna Louise Radaszewski
Blair Marie Reddish
Kate Elizabeth Rettstadt
Thomas Mead Richter
Katherine Teresa Ringler
Lindsey Rae Rodriguez
Patrick Roesle
Christina Marjorie Rosci
Shannon Marie Santillo-Herbert
Virginia Santos
Heather Elizabeth Saunders
Daniel Peter Schmuck
Sara Lynn Schubel
Philip Patterson Serebrenick
Zachary Toner Shapiro
Cynthia Dawn Shimer
Seiko Shiraishi
Elliot Raymond-William Simon
Catherine Elizabeth Sirizotti
Nicholas Micah Smart Coulter
Timothy James Smith
Christina Marie Spiker
Kathryn Kim Spillane
Christina Marie Spivey
Christopher Luke Stephenson
Craig Stevenson
Trevor Alexander Strunk

Ryan Francis Studdert
Jeffrey Edward Teigler
DiAndra Alyssa Thompson
Sean Christopher Tillman
Aaron E. Tolentino
Jenna Leigh Tomiello
Anthony J. Tori
Alexandra Tingey Tracz
Justin Anthony Traino
Michael Joseph Trio
Antonia Emmeline Tyriss
Daniel Peter Urban
Kathleen Margaret Urich
Natalie Ann Vadas
Christine J. Vanselow
Nathaniel Hearst Wagner
Joseph Matthew Wasserkrug
Sarah Elizabeth Weddle
Markus Sebastian Weise
Lisa Marie Weiser
Michael Theodore Wells
Karen Patricia Wendler
Hugh Darnell Wildrick
Cecilia Giné Wilson
Austin Meade Wisner
Aimee Muller Wright
Victoria Galen Wynne
Dina Elise Yarmus
Christopher Ian Yeager
Katherine Laura Zurich

Bachelor of Science

Dana Christine Alf
Samantha JoAnn Aly
Mayur Jayant Amin
Jordan Arena
David T. Ashworth
Seth A. Bakes
Aseem Singh Balhara
Evan Jacob Barker
Larry Allen Barr, Jr.
Ian Matthew Bell
Sharon Belowe
Erin Jean Bender
Gina Danielle Blonar
Kelly Lauren Borrell
Bradley Nelson Bowen
Caroline Elisabeth Boyer
Juliet Dougherty Bronstein
Jason Clair Brown
Bogdana Burlacu
Edward Thomas Butkovitz
Sara Jean Campbell
Alaina Marie Cara
Stephanie Michelle Cavalier
Eileen M. Censullo
Carly Scott Chiriano
Stephanie Marie Cieslak
Ramon Clark
Shelby St. John Cochran

Michael Thomas Collins
Logan Lee Conklin
Katherine Anne Conner
Brenden David Connor
Emily Masson Cooper
John Porter Cowden
Monica Jane Crary
Matthew C. Crowley
Kevin Michael Curl
Jessica Mae Czapnik
Sherrell Dandy
Jonathan M. Darmon
Laura Rose Davis
Matthew Joseph Davis
Christopher DeJoseph
Louis Anthony DeMark
Stacia Marie Detter
Thomas Anthony Dixon, Jr.
James Arnold Domestico
Barbara Ann Donald
Ronald A. Donato, Jr.
Adam Peate Donohue
John Joseph Donovan
Allison Noelle Douitt
Daniel A. Duffy, III
Adam John Ebling
Lisa Marie Elphick
Lynne Ann Erickson

Samantha Marie Erle
Jason Todd Every
Matthew Joseph Fabian
Rami Ali Farag
Kelly Nicole Field
Jenna Noelle Filipkowski
Michele Ann Finney
Mary Ellen Eireann Flynn
Joshua Michael Frear
Alexander Jack Frey
Tiffany Ilene Friedman
Jessica Lynn Furman
Catherine Mary Fusco
Kirsten M. Gambone
Lindsay Maryann Garavel
Marylisa Lorraine Gareau
Patrick James Gasda
Melissa June George
Parascevi Giavis
Lauren Elizabeth Gibson
Robert Francis Gibson
Lisa Irmira Gilardi
Corey Todd Goldberg
Lauren Leigh Goldstein
Michaela Ann Gorman
Elizabeth Martha Goudie
Melody Rose Gray
Mallory Rachel Greene

Benjamin Fitzpatrick Griswold
 Rayna Kay Grube
 Amy Faith Guminski
 Molly Maureen Gunti
 Sarah Jean Haas
 Thomas Jeffrey Hanlin, Jr. '06
 Caitlin Deneen Hanlon
 Abby Elise Hare
 Brandon Michael Hasse
 Michelle Diane Heayn
 Amelia Rebecca Kline Heck
 Jonelle Elizabeth Hedrick
 Yukie Hirao
 Amanda Elizabeth Howard
 Sean Thomas Howard
 Gabriel Rehr Huck
 Elsa Rachel James
 Sarah Christine Jansen
 Matthew Michael Jones
 Tavenner Anne Karlson
 Kimberly Myra Kask
 Erica Leigh Kehler
 Brian Charles Kennedy
 Jenny Lynn Kerschner
 Arliegh Jeanne King
 Jason David Knapp
 Reena S. Koodathil
 Marissa Emilia Koslov
 Joanna Louise Kramer
 Jenna Marie Krier
 Theodore Paul Kruscavage, III
 Scott David Krysa
 Jayne Marie Kunaszuk
 Ryan Matthew Lenhart '06
 Christina Marie Liberatore
 Abby Elizabeth Loefflad
 Valentina Maria LoPiccolo
 Andrea Christine Mack
 Kelly Anne Magnin

Meghan Lynn Maguire
 Michael Charles Malone
 Rachel Frances Margolis
 Sara Lynn Marshall
 Caitlin Leigh Massey
 Joyce Arleen McCauley
 Colin Thomas McDermott
 Darren Craig McGlinchey
 Emily Christine McGrath
 Ryan Joseph McGregor
 Katelyn Marie McMahon
 Marlena Monica McMahon-Purk
 Mathew James Miehl
 Edith Ann-Frances Miller
 Michael William Moffett
 Melinda Kathleen Molan
 Jeffrey Keith Monk
 Thomas Colby Moyer
 Anthony Natale
 Jessica Diane Newman
 Carrie Ann O'Connor
 Stephen Anthony Ordog, Jr.
 Mikala Keisha Pacificque
 Callie Morgan Pagano
 Brian Michael Paton
 Mark David Peacock
 Brandon Christopher Peer
 Jennifer Marie Pfaff
 Robin Elizabeth Pierce
 Christine M. Ragsdale
 Nicole Marie Rascavage
 Lauren Anne Rees
 Mary Virginia Reid
 Dana Marie Roach
 Jessica Meghan Rogers
 Jennifer Susan Romer
 Victoria Elizabeth Rosi
 Tyler Evan Schartel
 Natalie Marie Schroeter

Kirsten E. Schuck
 Jessica Amber Schutte
 Kari Deann Sears
 Timothy Paul Seibert
 Matthew Robert Sender
 Gina Marie Serago
 David Adam Shack
 Eric William Sills
 Jason Stanley Silverman
 Bradley Mitchell Smith
 Tracey Lynne Spack
 Michael Robert Stein
 Christina Marie Stephenson
 Molly Elizabeth Stevens
 Luke Fohrder Sullivan
 Sylvania Tang
 Jeffrey Edward Teigler
 Matthew Robinson Terry
 Joseph Bailey Turner
 Erin Marie Vanselow
 Adam Joseph Vazquez
 Andrew Michiah Vincent '06
 Douglas Clayton von Allmen
 Patrick Brennan Waldron
 Lauren Elizabeth Washam
 Lauren Michele Weaver
 Allison Kate Wechtler
 Amanda Katherine Wellbaum
 Christopher Lawrence Weller
 Eric William Wickersham '06
 Donald Merton Winterbottom, III
 Joshua David Wissler
 James Butler Wittenberg
 Matthew Karl Wolf
 Dana Datcher Yancey
 Joshua Yichye
 Zoi Alexander Zeo
 Derek Joseph Zimmer

Honorary Degrees

Doctor of Divinity
Doctor of Humane Letters
Doctor of Laws
Doctor of Humane Letters
Doctor of Humane Letters

Coleman Barr Brown
 Joan Myers Brown
 Walter E. Daller, Jr.
 Loren Pope
 Jeffrey D. Sachs

Faculty Awards

The H. Lloyd Jones, Jr. Award: *Mohammed Yahdi, Ph.D.*

Established in honor of H. Lloyd Jones, Jr., professor of English from 1947 to 1988, and awarded to a faculty member for distinguished advising and mentoring.

The Laughlin Professional Achievement Award: *Jeanine K. Czubaroff, Ph.D.*

Endowed by Henry P. Laughlin, M.D., '38, for a faculty member who has made significant contributions to scholarship.

The Lindback Award: *Richard L. Wallace, Ph.D.*

Given at Ursinus College and at other colleges for distinguished teaching.

Academic Calendar 2008-2009

August 2008

August 21	Th	Freshman Check-In
August 22	F	Ursinus Day Academic Convocation
August 24	Su	Upper Classes Check-In
August 25	M	Fall Semester Begins

September 2008

September 1	M	Labor Day (Classes Held)
September 5	F	Last Day to Add Classes
September 20	Sa	Family Day

October 2008

October 10	F	Mid-Semester Grades Due
October 10	F	Fall Holiday begins (after classes)
October 11-14	Sa-T	Fall Holiday
October 15	W	Classes Resume
October 18	Sa	Homecoming
October 24	F	Last Day to Drop with "W"

November 2008

November 3	M	Spring Term Registration Begins
November 14	F	Spring Term Registration Ends
November 25	T	Thanksgiving Recess Begins (after classes)
November 25	T	Residence Halls Close 5 pm
November 26-30	W-Su	Thanksgiving Recess
November 30	Su	Residence Halls Open 12 pm

December 2008

December 1	M	Classes Resume
December 1-5	M-F	Students pick up Financial Aid Application Packets
December 5	F	Last Day of Classes
December 5	F	Last Day to Drop
December 6	Sa	Reading Day
December 8-13	M-Sa	Final Exams
December 13	Sa	Residence Halls Close 5 pm

January 2009

January 15	Th	Deadline Early Decision Freshmen Financial Aid Application
January 18	Su	Residence Halls Open 12 pm
January 19	M	Spring Semester Begins
January 19	M	Martin Luther King Day
January 30	F	Last Day to Add Classes

February 2009

February 15	Su	Deadline for Regular Decision Freshman Financial Aid Application
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March 2009

March 6	F	Mid Semester Grades Due
March 6	F	Spring Vacation Begins (after classes)
March 6	F	Residence Halls Close 5 pm
March 7-15	Sa-Su	Spring Break
March 15	Su	Residence Halls Open 12 pm
March 16	M	Classes Resume
March 27	F	Last Day to Drop with "W"
March 30	M	Fall Semester Registration Begins

April 2009

April 1	W	Financial Aid Renewal Deadline
April 9	Th	Fall Semester Registration Ends
April 22	W	Celebration of Student Achievement Day

May 2009

May 1	F	Last Day to File PA Grants
May 4	M	Designated last Wednesday Class
May 4	M	Last Day to Drop
May 5	T	Reading Day
May 6-8	W-F	Final Exams
May 11-14	M-Th	Final Exams
May 14	Th	Residence Halls Close 5 pm
May 15	F	Baccalaureate
May 16	Sa	Commencement

June 2009

TBA		Orientation
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Academic Calendar

2009-2010

August 2009

August 27	Th	Freshman Check-In
August 28	F	Ursinus Day Academic Convocation
August 30	Su	Upper Classes Check-In
August 31	M	Fall Semester Begins

September 2009

September 7	M	Labor Day (Classes Held)
September 11	F	Last Day to Add Classes
September 26	Sa	Family Day

October 2009

October 16	F	Mid-Semester Grades Due
October 16	F	Fall Holiday begins (after classes)
October 17-20	Sa-T	Fall Holiday
October 21	W	Classes Resume
October 24	Sa	Homecoming
October 30	F	Last Day to Drop with "W"

November 2009

November 9	M	Spring Term Registration Begins
November 20	F	Spring Term Registration Ends
November 24	T	Thanksgiving Recess Begins (after classes)
November 24	T	Residence Halls Close 5 pm
November 25-29	W-Su	Thanksgiving Recess
November 29	Su	Residence Halls Open 12 pm
November 30	M	Classes Resume
November 30	M	Students pick up Financial Aid Application Packets

December 2009

December 1-4	T-F	Students pick up Financial Aid Application Packets
December 11	F	Last Day of Classes
December 11	F	Last Day to Drop
December 12	Sa	Reading Day
December 14-19	M-Sa	Final Exams
December 19	Sa	Residence Halls Close 5 pm

January 2010

January 15	F	Deadline Early Decision Freshmen Financial Aid Application
January 17	Su	Residence Halls Open 12 pm
January 18	M	Spring Semester Begins
January 18	M	Martin Luther King Day
January 29	F	Last Day to Add Classes

February 2010

February 15	M	Deadline for Regular Decision Freshman Financial Aid Application
-------------	---	--

March 2010

March 5	F	Mid Semester Grades Due
March 5	F	Spring Break begins (after classes)
March 5	F	Residence Halls Close 5 pm
March 6-14	Sa-Su	Spring Break
March 14	Su	Residence Halls Open 12 pm
March 15	M	Classes Resume
March 26	F	Last Day to Drop with "W"
March 29	M	Fall Semester Registration Begins

April 2010

April 1	Th	Financial Aid Renewal Deadline
April 8	Th	Fall Semester Registration Ends
April 15	Th	Financial Aid Renewal
April 21	W	Celebration of Student Achievement Day

May 2010

May 1	Sa	Last Day to File PA Grants
May 3	M	Designated last Wednesday Class
May 3	M	Last Day to Drop
May 4	T	Reading Day
May 5-7	W-F	Final Exams
May 10-13	M-Th	Final Exams
May 13	Th	Residence Halls Close 5 pm
May 14	F	Baccalaureate
May 15	Sa	Commencement

June 2010

TBA		Orientation
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CAMPUS MAP LEGEND

Academic & Administrative Locations

<i>By Name</i>	<i>By Number</i>
20 Baseball Field	1 Corson Hall
3 Berman Museum of Art	2 Unity House
5 Bomberger Hall	3 Berman Museum of Art
11 Bookstore	4 Olin Hall
13 Campus Safety	5 Bomberger Hall
1 Corson Hall	5a Fetterolf House (Center for Continuous Learning)
14 Facilities Services	6 Myrin Library
5a Fetterolf House (Center for Continuous Learning)	7 Hillel House
15 Floy Lewis Bakes Center (including Helfferich Hall Gym)	8 Pfahler Hall
7 Hillel House	9 Thomas Hall
25 Hunsberger Woods	10 Kaleidoscope Performing Arts Center
10 Kaleidoscope Performing Arts Center	11 Bookstore
6 Myrin Library	12 Wismer Center
4 Olin Hall	13 Campus Safety
18 Patterson Football Field	14 Facilities Services
8 Pfahler Hall	15 Floy Lewis Bakes Center (including Helfferich Hall Gym)
23 Practice Field (North)	16 Ritter Center
17 Practice Field (South)	17 Practice Field (South)
16 Ritter Center	18 Patterson Football Field
19 Snell Field Hockey Field	19 Snell Field Hockey Field
24 Soccer and Lacrosse Field	20 Baseball Field
22 Softball Field	21 Tennis Courts
21 Tennis Courts	22 Softball Field
9 Thomas Hall	23 Practice Field (North)
2 Unity House	24 Soccer and Lacrosse Field
12 Wismer Center	25 Hunsberger Woods

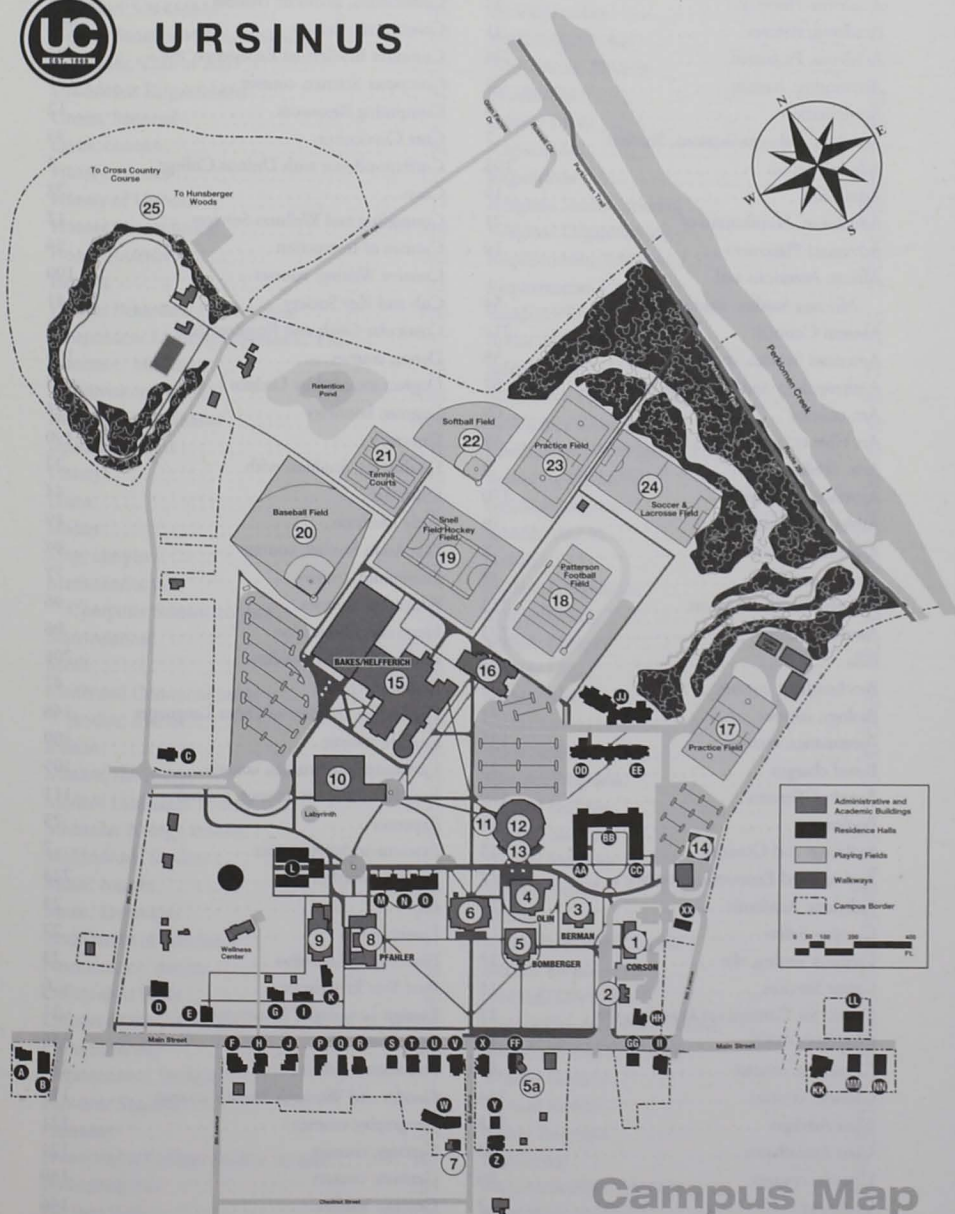
Residence Halls

<i>By Name</i>	<i>By Letter</i>
C 201-203 Ninth Avenue	A 944 Main Street
Z 30-32 Sixth	B 942 Main Street
NN 424-426 Main	C 201-203 Ninth Avenue
MM 444 Main	D Cloak House (811 Main)
S 624 Main	E Isenberg Hall (801 Main)
P 702 Main	F 732 Main
F 732 Main	G Elliott House (785 Main)
I 777 Main Street	H Todd Hall (724 Main)
B 942 Main Street	I 777 Main Street
A 944 Main Street	J Wicks House (716 Main)
KK Barbershop (476 Main)	K Omwake Hall (701 Main)
AA Beardwood Hall	L Reimert Hall
O Brodbeck Hall	M Curtis Hall
LL Clamer Hall (409 Main)	N Wilkinson Hall
D Cloak House (811 Main)	O Brodbeck Hall
II Commonwealth (500 Main)	P 702 Main
M Curtis Hall	Q Schaff Hall
U Duryea Hall (612 Main)	R Olevian Hall
G Elliott House (785 Main)	S 624 Main
FF Fetterolf House (554 Main)	T Zwingli Hall (620 Main)
X Hobson Hall (568 Main)	U Duryea Hall (612 Main)
E Isenberg Hall (801 Main)	V Schreiner Hall (600 Main)
HH Keigwin Hall (513 Main)	W Musser Hall (23 Sixth)
GG Maples Hall (512 Main)	X Hobson Hall (568 Main)
W Musser Hall (23 Sixth)	XX Sprinkle Hall
JJ New Hall	Y Sturgis Hall (26 Sixth)
EE North Hall	Z 30-32 Sixth
R Olevian Hall	AA Beardwood Hall
K Omwake Hall (701 Main)	BB Paisley Hall
BB Paisley Hall	CC Stauffer Hall
L Reimert Hall	DD Richter Hall
DD Richter Hall	EE North Hall
Q Schaff Hall	FF Fetterolf House (554 Main)
V Schreiner Hall (600 Main)	GG Maples Hall (512 Main)
XX Sprinkle Hall	HH Keigwin Hall (513 Main)
CC Stauffer Hall	II Commonwealth (500 Main)
Y Sturgis Hall (26 Sixth)	JJ New Hall
H Todd Hall (724 Main)	KK Barbershop (476 Main)
J Wicks House (716 Main)	LL Clamer Hall (409 Main)
N Wilkinson Hall	MM 444 Main
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URSINUS



Campus Map

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